



SEQUENCE LISTING

<110> Nelson B. Freimer
Hong Chen
Victor I. Reus
Susan K. Service
Lynne Alison McInnes
Pedro Leon
Lodewijk Sandkuijl

<120> Method and Compositions for Diagnosing and Treating Chromosome-18p Related Disorders

<130> UCAL-154CIP5

<140> 10/629,313
<141> 2003-07-28

<150> 09/722,544
<151> 2000-11-28

<150> 09/631,275
<151> 2000-08-02

<150> 09/268,992
<151> 1999-03-16

<150> 09/236,134
<151> 1999-01-22

<150> 60/078,044
<151> 1998-03-16

<150> 60/088,312
<151> 1998-06-05

<150> 60/106,056
<151> 1998-10-28

<160> 165

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 2055
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (285)...(1769)

<400> 1
tgcgtcacct gcaggccccg gccgcggggt tggttccac cctggagggt gctgacaccc 60
tgtgcctcg gctgacttcc agccgggtggc acagacgcct ccagggggca gcactcaagc 120
gcatcttagg aatgacagag ttgcgtccct ctctgttgcc aggctggagt tcagtggcat 180
gttcttagct cactgaagcc tcaaattcct gggtcaagt gaccctccca cctcagcccc 240
atgaggacct gggactacag gacacagcta aatccctgac acgg atg aaa att aaa 296
Met Lys Ile Lys

gca gag aaa aac gaa ggt cct tcc aga agc tgg tgg caa ctt cac tgg Ala Glu Lys Asn Glu Gly Pro Ser Arg Ser Trp Trp Gln Leu His Trp 5 10 15 20	344
gga gat att gca aat aac agc ggg aac atg aag ccg cca ctc ttg gtg Gly Asp Ile Ala Asn Asn Ser Gly Asn Met Lys Pro Pro Leu Leu Val 25 30 35	392
ttt att gtg tgt ctg ctg tgg ttg aaa gac agt cac tgc gca ccc act Phe Ile Val Cys Leu Leu Trp Leu Lys Asp Ser His Cys Ala Pro Thr 40 45 50	440
tgg aag gac aaa act gct atc agt gaa aac ctg aag agt ttt tct gag Trp Lys Asp Lys Thr Ala Ile Ser Glu Asn Leu Lys Ser Phe Ser Glu 55 60 65	488
gtg ggg gag ata gat gca gat gaa gag gtg aag aag gct ttg act ggt Val Gly Glu Ile Asp Ala Asp Glu Glu Val Lys Lys Ala Leu Thr Gly 70 75 80	536
att aag caa atg aaa atc atg atg gaa aga aaa gag aag gaa cac acc Ile Lys Gln Met Lys Ile Met Met Glu Arg Lys Glu Lys Glu His Thr 85 90 95 100	584
aat cta atg agc acc ctg aag aaa tgc aga gaa gaa aag cag gag gcc Asn Leu Met Ser Thr Leu Lys Lys Cys Arg Glu Glu Lys Gln Glu Ala 105 110 115	632
ctg aaa ctt ctg aat gaa gtt caa gaa cat ctg gag gaa gaa agg Leu Lys Leu Leu Asn Glu Val Gln Glu His Leu Glu Glu Glu Arg 120 125 130	680
cta tgc cgg gag tct ttg gca gat tcc tgg ggt gaa tgc agg tct tgc Leu Cys Arg Glu Ser Leu Ala Asp Ser Trp Gly Glu Cys Arg Ser Cys 135 140 145	728
ctg gaa aat aac tgc atg aga att tat aca acc tgc caa cct agc tgg Leu Glu Asn Asn Cys Met Arg Ile Tyr Thr Thr Cys Gln Pro Ser Trp 150 155 160	776
tcc tct gtg aaa aat aag att gaa cgg ttt ttc agg aag ata tat caa Ser Ser Val Lys Asn Lys Ile Glu Arg Phe Phe Arg Lys Ile Tyr Gln 165 170 175 180	824
ttt cta ttt cct ttc cat gaa gat aat gaa aaa gat ctc ccc atc agt Phe Leu Phe Pro Phe His Glu Asp Asn Glu Lys Asp Leu Pro Ile Ser 185 190 195	872
gaa aag ctc att gag gaa gat gca caa ttg acc caa atg gag gat gtg Glu Lys Leu Ile Glu Glu Asp Ala Gln Leu Thr Gln Met Glu Asp Val 200 205 210	920
ttc agc cag ttg act gtg gat gtg aat tct ctc ttt aac agg agt ttt Phe Ser Gln Leu Thr Val Asp Val Asn Ser Leu Phe Asn Arg Ser Phe 215 220 225	968
aac gtc ttc aga cag atg cag caa gag ttt gac cag act ttt caa tca Asn Val Phe Arg Gln Met Gln Gln Glu Phe Asp Gln Thr Phe Gln Ser	1016

230	235	240	
cat ttc ata tca gat aca gac cta act gag cct tac ttt ttt cca gct			1064
His Phe Ile Ser Asp Thr Asp Leu Thr Glu Pro Tyr Phe Phe Pro Ala			
245	250	255	260
tgc tct aaa gag ccg atg aca aaa gca gat ctt gag caa tgt tgg gac			1112
Phe Ser Lys Glu Pro Met Thr Lys Ala Asp Leu Glu Gln Cys Trp Asp			
265	270	275	
att ccc aac ttc ttc cag ctg ttt tgt aat ttc agt gtc tct att tat			1160
Ile Pro Asn Phe Phe Gln Leu Phe Cys Asn Phe Ser Val Ser Ile Tyr			
280	285	290	
gaa agt gtc agt gaa aca att act aag atg ctg aag gca ata gaa gat			1208
Glu Ser Val Ser Glu Thr Ile Thr Lys Met Leu Lys Ala Ile Glu Asp			
295	300	305	
tta cca aaa caa gac aaa gct cct gac cac gga ggc ctg att tca aag			1256
Leu Pro Lys Gln Asp Lys Ala Pro Asp His Gly Gly Leu Ile Ser Lys			
310	315	320	
atg tta cct ggg cag gac aga gga ctg tgt ggg gaa ctt gac cag aat			1304
Met Leu Pro Gly Gln Asp Arg Gly Leu Cys Gly Glu Leu Asp Gln Asn			
325	330	335	340
ttg tca aga tgt ttc aaa ttt cat gaa aaa tgc caa aaa tgt cag gct			1352
Leu Ser Arg Cys Phe Lys His Glu Lys Cys Gln Lys Cys Gln Ala			
345	350	355	
cac cta tct gaa gac tgt cct gat gta cct gct ctg cac aca gaa tta			1400
His Leu Ser Glu Asp Cys Pro Asp Val Pro Ala Leu His Thr Glu Leu			
360	365	370	
gac gag gcg atc agg ttg gtc aat gta tcc aat cag cag tat ggc cag			1448
Asp Glu Ala Ile Arg Leu Val Asn Val Ser Asn Gln Gln Tyr Gly Gln			
375	380	385	
att ctc cag atg acc cgg aag cac ttg gag gac acc gcc tat ctg gtg			1496
Ile Leu Gln Met Thr Arg Lys His Leu Glu Asp Thr Ala Tyr Leu Val			
390	395	400	
gag aag atg aga ggg caa ttt ggc tgg gtg tct gaa ctg gca aac cag			1544
Glu Lys Met Arg Gly Gln Phe Gly Trp Val Ser Glu Leu Ala Asn Gln			
405	410	415	420
gcc cca gaa aca gag atc atc ttt aat tca ata cag gta gtt cca agg			1592
Ala Pro Glu Thr Glu Ile Ile Phe Asn Ser Ile Gln Val Val Pro Arg			
425	430	435	
att cat gaa gga aat att tcc aaa caa gat gaa aca atg atg aca gac			1640
Ile His Glu Gly Asn Ile Ser Lys Gln Asp Glu Thr Met Met Thr Asp			
440	445	450	
tta agc att ctg cct tcc tct aat ttc aca ctc aag atc cct ctt gaa			1688
Leu Ser Ile Leu Pro Ser Ser Asn Phe Thr Leu Lys Ile Pro Leu Glu			
455	460	465	
gaa agt gct gag agt tct aac ttc att ggc tac gta gtg gca aaa gct			1736
Glu Ser Ala Glu Ser Ser Asn Phe Ile Gly Tyr Val Val Ala Lys Ala			

470

475

480

cta cag cat ttt aag gaa cat ttt aaa acc tgg taagaagatc taatgcattcc	1789
Leu Gln His Phe Lys Glu His Phe Lys Thr Trp	
485	490
tatatccagt aagtagaatt atctcttcat ctgggacctg gaaatcctga aataaaaaag	1849
gataatgcaa taaacacagt tgcagggaaag tatgttagct atatactatg aagtactctt	1909
agtttactta tggtaatgg cttagctatt aatactaaa ttgagttaaa atgaaaattc	1969
ctccctaaaaa aatcaaacgt aatatgtatt acatttcatg gtacattagt agttctttgt	2029
atattgaata aatactaaat caccta	2055
<210> 2	
<211> 495	
<212> PRT	
<213> Homo sapiens	
<400> 2	
Met Lys Ile Lys Ala Glu Lys Asn Glu Gly Pro Ser Arg Ser Trp Trp	
1 5 10 15	
Gln Leu His Trp Gly Asp Ile Ala Asn Asn Ser Gly Asn Met Lys Pro	
20 25 30	
Pro Leu Leu Val Phe Ile Val Cys Leu Leu Trp Leu Lys Asp Ser His	
35 40 45	
Cys Ala Pro Thr Trp Lys Asp Lys Thr Ala Ile Ser Glu Asn Leu Lys	
50 55 60	
Ser Phe Ser Glu Val Gly Glu Ile Asp Ala Asp Glu Glu Val Lys Lys	
65 70 75 80	
Ala Leu Thr Gly Ile Lys Gln Met Lys Ile Met Met Glu Arg Lys Glu	
85 90 95	
Lys Glu His Thr Asn Leu Met Ser Thr Leu Lys Lys Cys Arg Glu Glu	
100 105 110	
Lys Gln Glu Ala Leu Lys Leu Leu Asn Glu Val Gln Glu His Leu Glu	
115 120 125	
Glu Glu Glu Arg Leu Cys Arg Glu Ser Leu Ala Asp Ser Trp Gly Glu	
130 135 140	
Cys Arg Ser Cys Leu Glu Asn Asn Cys Met Arg Ile Tyr Thr Thr Cys	
145 150 155 160	
Gln Pro Ser Trp Ser Ser Val Lys Asn Lys Ile Glu Arg Phe Phe Arg	
165 170 175	
Lys Ile Tyr Gln Phe Leu Phe Pro Phe His Glu Asp Asn Glu Lys Asp	
180 185 190	
Leu Pro Ile Ser Glu Lys Leu Ile Glu Glu Asp Ala Gln Leu Thr Gln	
195 200 205	
Met Glu Asp Val Phe Ser Gln Leu Thr Val Asp Val Asn Ser Leu Phe	
210 215 220	
Asn Arg Ser Phe Asn Val Phe Arg Gln Met Gln Gln Glu Phe Asp Gln	
225 230 235 240	
Thr Phe Gln Ser His Phe Ile Ser Asp Thr Asp Leu Thr Glu Pro Tyr	
245 250 255	
Phe Phe Pro Ala Phe Ser Lys Glu Pro Met Thr Lys Ala Asp Leu Glu	
260 265 270	
Gln Cys Trp Asp Ile Pro Asn Phe Phe Gln Leu Phe Cys Asn Phe Ser	
275 280 285	
Val Ser Ile Tyr Glu Ser Val Ser Glu Thr Ile Thr Lys Met Leu Lys	
290 295 300	
Ala Ile Glu Asp Leu Pro Lys Gln Asp Lys Ala Pro Asp His Gly Gly	
305 310 315 320	
Leu Ile Ser Lys Met Leu Pro Gly Gln Asp Arg Gly Leu Cys Gly Glu	
325 330 335	
Leu Asp Gln Asn Leu Ser Arg Cys Phe Lys Phe His Glu Lys Cys Gln	
340 345 350	

Lys	Cys	Gln	Ala	His	Leu	Ser	Glu	Asp	Cys	Pro	Asp	Val	Pro	Ala	Leu
				355			360					365			
His	Thr	Glu	Leu	Asp	Glu	Ala	Ile	Arg	Leu	Val	Asn	Val	Ser	Asn	Gln
				370			375				380				
Gln	Tyr	Gly	Gln	Ile	Leu	Gln	Met	Thr	Arg	Lys	His	Leu	Glu	Asp	Thr
				385			390			395			400		
Ala	Tyr	Leu	Val	Glu	Lys	Met	Arg	Gly	Gln	Phe	Gly	Trp	Val	Ser	Glu
				405			410				415				
Leu	Ala	Asn	Gln	Ala	Pro	Glu	Thr	Glu	Ile	Ile	Phe	Asn	Ser	Ile	Gln
				420			425				430				
Val	Val	Pro	Arg	Ile	His	Glu	Gly	Asn	Ile	Ser	Lys	Gln	Asp	Glu	Thr
				435			440				445				
Met	Met	Thr	Asp	Leu	Ser	Ile	Leu	Pro	Ser	Ser	Asn	Phe	Thr	Leu	Lys
				450			455				460				
Ile	Pro	Leu	Glu	Glu	Ser	Ala	Glu	Ser	Ser	Asn	Phe	Ile	Gly	Tyr	Val
				465			470			475			480		
Val	Ala	Lys	Ala	Leu	Gln	His	Phe	Lys	Glu	His	Phe	Lys	Thr	Trp	
				485			490				495				

<210> 3

<211> 1957

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (241)...(1671)

<400> 3

tgcgtcacct	gcaggccccgg	gccgcggggt	tggttccac	cctggagggt	gctgacaccc		60								
tgtgccctcg	gctgacttcc	agccgggtgc	acagacgcct	ccagggggca	gcactcaagc		120								
gcatcttagg	aatgacagag	ttgcgtccct	ctcggttgcc	aggctggagt	tcagtggcat		180								
gttcatagct	cactgaagcc	tcaaattcct	gggttcaagt	gaccctccct	cctcagcccc		240								
atg	agg	acc	tgg	gac	tac	agt	aac	agc	ggg	aac	atg	aag	ccg	cca	ctc
Met	Arg	Thr	Trp	Asp	Tyr	Ser	Asn	Ser	Gly	Asn	Met	Lys	Pro	Pro	Leu
1				5			10					15			

ttg	gtg	ttt	att	gtg	tgt	ctg	ctg	tgg	ttg	aaa	gac	agt	cac	tcc	gca
Leu	Val	Phe	Ile	Val	Cys	Leu	Leu	Trp	Leu	Lys	Asp	Ser	His	Ser	Ala
				20				25				30			

ccc	act	tgg	aag	gac	aaa	agt	gct	atc	agt	gaa	aac	ctg	aag	agt	ttt
Pro	Thr	Trp	Lys	Asp	Lys	Ser	Ala	Ile	Ser	Glu	Asn	Leu	Lys	Ser	Phe
				35				40				45			

tct	gag	gtg	ggg	gag	ata	gat	gca	gat	gaa	gag	gtg	aag	aag	gct	ttg
Ser	Glu	Val	Gly	Glu	Ile	Asp	Ala	Asp	Glu	Glu	Val	Lys	Lys	Ala	Leu
				50			55				60				

act	ggt	att	aag	caa	atg	aaa	atc	atg	atg	gaa	aga	aaa	gag	aag	gca
Thr	Gly	Ile	Lys	Gln	Met	Lys	Ile	Met	Met	Glu	Arg	Lys	Glu	Lys	Ala
				65			70			75		80			

aac	cag	gcc	cca	gaa	aca	gag	atc	atc	ttt	aat	tca	ata	cag	gta	gtt
Asn	Gln	Ala	Pro	Glu	Thr	Glu	Ile	Ile	Phe	Asn	Ser	Ile	Gln	Val	Val
				85			90				95				

cca	agg	att	gaa	cac	acc	aat	cta	atg	agc	acc	ctg	aag	aaa	tgc	aga
Pro	Arg	Ile	Glu	His	Thr	Asn	Leu	Met	Ser	Thr	Leu	Lys	Lys	Cys	Arg
				100			105				110				

gaa	gaa	aag	cag	gag	gcc	ctg	aaa	ctt	ctg	aat	gaa	gtt	caa	gaa	cat
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Glu	Glu	Lys	Gln	Glu	Ala	Leu	Lys	Leu	Leu	Asn	Glu	Val	Gln	Glu	His		
115							120						125				
ctg	gag	gaa	gaa	agg	cta	tgc	cgg	gag	tct	ttg	gca	gat	tcc	tgg		672	
Leu	Glu	Glu	Glu	Glu	Arg	Leu	Cys	Arg	Glu	Ser	Leu	Ala	Asp	Ser	Trp		
130						135				140							
ggt	gaa	tgc	agg	tct	tgc	ctg	gaa	aat	aac	tgc	atg	aga	att	tat	aca		720
Gly	Glu	Cys	Arg	Ser	Cys	Leu	Glu	Asn	Asn	Cys	Met	Arg	Ile	Tyr	Thr		
145						150				155				160			
acc	tgc	caa	cct	agc	tgg	tcc	tct	gtg	aaa	aat	aag	att	gaa	cgg	ttt		768
Thr	Cys	Gln	Pro	Ser	Trp	Ser	Ser	Val	Lys	Asn	Lys	Ile	Glu	Arg	Phe		
								165		170			175				
ttc	agg	aag	ata	tat	caa	ttt	cta	ttt	cct	ttc	cat	gaa	gat	aat	gaa		816
Phe	Arg	Lys	Ile	Tyr	Gln	Phe	Leu	Phe	Pro	Phe	His	Glu	Asp	Asn	Glu		
							180		185			190					
aaa	gat	ctc	ccc	atc	agt	gaa	aag	ctc	att	gag	gaa	gat	gca	caa	ttg		864
Lys	Asp	Leu	Pro	Ile	Ser	Glu	Lys	Leu	Ile	Glu	Glu	Asp	Ala	Gln	Leu		
						195		200			205						
acc	caa	atg	gag	gat	gtg	ttc	agc	cag	ttg	act	gtg	gat	gtg	aat	tct		912
Thr	Gln	Met	Glu	Asp	Val	Phe	Ser	Gln	Leu	Thr	Val	Asp	Val	Asn	Ser		
						210		215			220						
ctc	ttt	aac	agg	agt	ttt	aac	gtc	ttc	aga	cag	atg	cag	caa	gag	ttt		960
Leu	Phe	Asn	Arg	Ser	Phe	Asn	Val	Phe	Arg	Gln	Met	Gln	Gln	Glu	Phe		
						225		230			235			240			
gac	cag	act	ttt	caa	tca	cat	ttc	ata	tca	gat	aca	gac	cta	act	gag		1008
Asp	Gln	Thr	Phe	Gln	Ser	His	Phe	Ile	Ser	Asp	Thr	Asp	Leu	Thr	Glu		
						245		250			255						
cct	tac	ttt	cca	gct	ttc	tct	aaa	gag	ccg	atg	aca	aaa	gca	gat		1056	
Pro	Tyr	Phe	Pro	Ala	Phe	Ser	Lys	Glu	Pro	Met	Thr	Lys	Ala	Asp			
						260		265			270						
ctt	gag	caa	tgt	tgg	gac	att	ccc	aac	ttc	ttc	cag	ctg	ttt	tgt	aat		1104
Leu	Glu	Gln	Cys	Trp	Asp	Ile	Pro	Asn	Phe	Phe	Gln	Leu	Phe	Cys	Asn		
						275		280			285						
ttc	agt	gtc	tct	att	tat	gaa	agt	gtc	agt	gaa	aca	att	act	aag	atg		1152
Phe	Ser	Val	Ser	Ile	Tyr	Glu	Ser	Val	Ser	Glu	Thr	Ile	Thr	Lys	Met		
						290		295			300						
ctg	aag	gca	ata	gaa	gat	tta	cca	aaa	caa	gac	aaa	gct	cct	gac	cac		1200
Leu	Lys	Ala	Ile	Glu	Asp	Leu	Pro	Lys	Gln	Asp	Lys	Ala	Pro	Asp	His		
						305		310			315			320			
gga	ggc	ctg	att	tca	aag	atg	tta	cct	ggg	cag	gac	aga	gga	ctg	tgt		1248
Gly	Gly	Leu	Ile	Ser	Lys	Met	Leu	Pro	Gly	Gln	Asp	Arg	Gly	Leu	Cys		
						325		330			335						
ggg	gaa	ctt	gac	cag	aat	ttg	tca	aga	tgt	ttc	aaa	ttt	cat	gaa	aaa		1296
Gly	Glu	Leu	Asp	Gln	Asn	Leu	Ser	Arg	Cys	Phe	Lys	Phe	His	Glu	Lys		
						340		345			350						
tgc	caa	aaa	tgt	cag	gct	cac	cta	tct	gaa	gac	tgt	cct	gat	gta	cct		1344
Cys	Gln	Lys	Cys	Gln	Ala	His	Leu	Ser	Glu	Asp	Cys	Pro	Asp	Val	Pro		

355	360	365																																																																																																																																																																																																																																																																																																														
gct ctg cac aca gaa tta gac gag ggc atc agg ttg gtc aat gta tcc Ala Leu His Thr Glu Leu Asp Glu Ala Ile Arg Leu Val Asn Val Ser 370	375	380	1392																																																																																																																																																																																																																																																																																																													
aat cag cag tat ggc cag att ctc cag atg acc cgg aag cac ttg gag Asn Gln Gln Tyr Gly Gln Ile Leu Gln Met Thr Arg Lys His Leu Glu 385	390	395	1440																																																																																																																																																																																																																																																																																																													
gac acc gcc tat ctg gtg gag aag atg aga ggg caa ttt ggc tgg gtg Asp Thr Ala Tyr Leu Val Glu Lys Met Arg Gly Gln Phe Gly Trp Val 405	410	415	1488																																																																																																																																																																																																																																																																																																													
tct gaa ctg cat gaa gga aat att tcc aaa caa gat gaa aca atg atg Ser Glu Leu His Glu Gly Asn Ile Ser Lys Gln Asp Glu Thr Met Met 420	425	430	1536																																																																																																																																																																																																																																																																																																													
aca gac tta agc att ctg cct tcc tct aat ttc aca ctc aag atc cct Thr Asp Leu Ser Ile Leu Pro Ser Ser Asn Phe Thr Leu Lys Ile Pro 435	440	445	1584																																																																																																																																																																																																																																																																																																													
ctt gaa gaa agt gct gag agt tct aac ttc att ggc tac gta gtg gca Leu Glu Glu Ser Ala Glu Ser Ser Asn Phe Ile Gly Tyr Val Val Ala 450	455	460	1632																																																																																																																																																																																																																																																																																																													
aaa gct cta cag cat ttt aag gaa cat ttt aaa acc tgg taagaagatc Lys Ala Leu Gln His Phe Lys Glu His Phe Lys Thr Trp 465	470	475	1681																																																																																																																																																																																																																																																																																																													
taatgcattcc tataccatc aagttagaatt atctttcat ctgggacctg gaaatcctga aataaaaaag gataatgcaa taaacacagt tgccggaaag tatgttagct atatactatg aagtactctt agtttactta tggtgaatgg cttagctatt aatactcaaa tttagttaaa atggaaattc ctccttaaaa aatcaaacgt aatatgtatt acatttcattg gtacatttagt agttctttgt atattgaata aatactaaaat caccta			1741 1801 1861 1921 1957																																																																																																																																																																																																																																																																																																													
<p><210> 4 <211> 477 <212> PRT <213> Homo sapiens</p>																																																																																																																																																																																																																																																																																																																
<p><400> 4</p> <table border="0"> <tbody> <tr> <td>Met</td> <td>Arg</td> <td>Thr</td> <td>Trp</td> <td>Asp</td> <td>Tyr</td> <td>Ser</td> <td>Asn</td> <td>Ser</td> <td>Gly</td> <td>Asn</td> <td>Met</td> <td>Lys</td> <td>Pro</td> <td>Pro</td> <td>Leu</td> </tr> <tr> <td style="text-align: center;">1</td> <td></td> <td style="text-align: center;">10</td> <td></td> <td></td> <td style="text-align: center;">15</td> <td></td> </tr> <tr> <td>Leu</td> <td>Val</td> <td>Phe</td> <td>Ile</td> <td>Val</td> <td>Cys</td> <td>Leu</td> <td>Leu</td> <td>Trp</td> <td>Leu</td> <td>Lys</td> <td>Asp</td> <td>Ser</td> <td>His</td> <td>Ser</td> <td>Ala</td> </tr> <tr> <td></td> <td style="text-align: center;">20</td> <td style="text-align: center;">25</td> <td style="text-align: center;">30</td> </tr> <tr> <td>Pro</td> <td>Thr</td> <td>Trp</td> <td>Lys</td> <td>Asp</td> <td>Lys</td> <td>Ser</td> <td>Ala</td> <td>Ile</td> <td>Ser</td> <td>Glu</td> <td>Asn</td> <td>Leu</td> <td>Lys</td> <td>Ser</td> <td>Phe</td> </tr> <tr> <td></td> <td style="text-align: center;">35</td> <td style="text-align: center;">40</td> <td style="text-align: center;">45</td> </tr> <tr> <td>Ser</td> <td>Glu</td> <td>Val</td> <td>Gly</td> <td>Glu</td> <td>Ile</td> <td>Asp</td> <td>Ala</td> <td>Asp</td> <td>Glu</td> <td>Glu</td> <td>Val</td> <td>Lys</td> <td>Lys</td> <td>Ala</td> <td>Leu</td> </tr> <tr> <td></td> <td style="text-align: center;">50</td> <td style="text-align: center;">55</td> <td style="text-align: center;">60</td> </tr> <tr> <td>Thr</td> <td>Gly</td> <td>Ile</td> <td>Lys</td> <td>Gln</td> <td>Met</td> <td>Lys</td> <td>Ile</td> <td>Met</td> <td>Met</td> <td>Glu</td> <td>Arg</td> <td>Lys</td> <td>Glu</td> <td>Lys</td> <td>Ala</td> </tr> <tr> <td></td> <td style="text-align: center;">65</td> <td style="text-align: center;">70</td> <td style="text-align: center;">75</td> <td style="text-align: center;">80</td> </tr> <tr> <td>Asn</td> <td>Gln</td> <td>Ala</td> <td>Pro</td> <td>Glu</td> <td>Thr</td> <td>Glu</td> <td>Ile</td> <td>Ile</td> <td>Phe</td> <td>Asn</td> <td>Ser</td> <td>Ile</td> <td>Gln</td> <td>Val</td> <td>Val</td> </tr> <tr> <td></td> <td style="text-align: center;">85</td> <td style="text-align: center;">90</td> <td style="text-align: center;">95</td> <td></td> </tr> <tr> <td>Pro</td> <td>Arg</td> <td>Ile</td> <td>Glu</td> <td>His</td> <td>Thr</td> <td>Asn</td> <td>Leu</td> <td>Met</td> <td>Ser</td> <td>Thr</td> <td>Leu</td> <td>Lys</td> <td>Lys</td> <td>Cys</td> <td>Arg</td> </tr> <tr> <td></td> <td style="text-align: center;">100</td> <td style="text-align: center;">105</td> <td style="text-align: center;">110</td> <td></td> </tr> <tr> <td>Glu</td> <td>Glu</td> <td>Lys</td> <td>Gln</td> <td>Glu</td> <td>Ala</td> <td>Leu</td> <td>Lys</td> <td>Leu</td> <td>Leu</td> <td>Asn</td> <td>Glu</td> <td>Val</td> <td>Gln</td> <td>Glu</td> <td>His</td> </tr> <tr> <td></td> <td style="text-align: center;">115</td> <td style="text-align: center;">120</td> <td style="text-align: center;">125</td> <td></td> </tr> <tr> <td>Leu</td> <td>Glu</td> <td>Glu</td> <td>Glu</td> <td>Glu</td> <td>Arg</td> <td>Leu</td> <td>Cys</td> <td>Arg</td> <td>Glu</td> <td>Ser</td> <td>Leu</td> <td>Ala</td> <td>Asp</td> <td>Ser</td> <td>Trp</td> </tr> <tr> <td></td> <td style="text-align: center;">130</td> <td style="text-align: center;">135</td> <td style="text-align: center;">140</td> <td></td> </tr> </tbody> </table>				Met	Arg	Thr	Trp	Asp	Tyr	Ser	Asn	Ser	Gly	Asn	Met	Lys	Pro	Pro	Leu	1											10			15		Leu	Val	Phe	Ile	Val	Cys	Leu	Leu	Trp	Leu	Lys	Asp	Ser	His	Ser	Ala															20	25	30	Pro	Thr	Trp	Lys	Asp	Lys	Ser	Ala	Ile	Ser	Glu	Asn	Leu	Lys	Ser	Phe															35	40	45	Ser	Glu	Val	Gly	Glu	Ile	Asp	Ala	Asp	Glu	Glu	Val	Lys	Lys	Ala	Leu															50	55	60	Thr	Gly	Ile	Lys	Gln	Met	Lys	Ile	Met	Met	Glu	Arg	Lys	Glu	Lys	Ala															65	70	75	80	Asn	Gln	Ala	Pro	Glu	Thr	Glu	Ile	Ile	Phe	Asn	Ser	Ile	Gln	Val	Val															85	90	95		Pro	Arg	Ile	Glu	His	Thr	Asn	Leu	Met	Ser	Thr	Leu	Lys	Lys	Cys	Arg															100	105	110		Glu	Glu	Lys	Gln	Glu	Ala	Leu	Lys	Leu	Leu	Asn	Glu	Val	Gln	Glu	His															115	120	125		Leu	Glu	Glu	Glu	Glu	Arg	Leu	Cys	Arg	Glu	Ser	Leu	Ala	Asp	Ser	Trp															130	135	140	
Met	Arg	Thr	Trp	Asp	Tyr	Ser	Asn	Ser	Gly	Asn	Met	Lys	Pro	Pro	Leu																																																																																																																																																																																																																																																																																																	
1											10			15																																																																																																																																																																																																																																																																																																		
Leu	Val	Phe	Ile	Val	Cys	Leu	Leu	Trp	Leu	Lys	Asp	Ser	His	Ser	Ala																																																																																																																																																																																																																																																																																																	
														20	25	30																																																																																																																																																																																																																																																																																																
Pro	Thr	Trp	Lys	Asp	Lys	Ser	Ala	Ile	Ser	Glu	Asn	Leu	Lys	Ser	Phe																																																																																																																																																																																																																																																																																																	
														35	40	45																																																																																																																																																																																																																																																																																																
Ser	Glu	Val	Gly	Glu	Ile	Asp	Ala	Asp	Glu	Glu	Val	Lys	Lys	Ala	Leu																																																																																																																																																																																																																																																																																																	
														50	55	60																																																																																																																																																																																																																																																																																																
Thr	Gly	Ile	Lys	Gln	Met	Lys	Ile	Met	Met	Glu	Arg	Lys	Glu	Lys	Ala																																																																																																																																																																																																																																																																																																	
														65	70	75	80																																																																																																																																																																																																																																																																																															
Asn	Gln	Ala	Pro	Glu	Thr	Glu	Ile	Ile	Phe	Asn	Ser	Ile	Gln	Val	Val																																																																																																																																																																																																																																																																																																	
														85	90	95																																																																																																																																																																																																																																																																																																
Pro	Arg	Ile	Glu	His	Thr	Asn	Leu	Met	Ser	Thr	Leu	Lys	Lys	Cys	Arg																																																																																																																																																																																																																																																																																																	
														100	105	110																																																																																																																																																																																																																																																																																																
Glu	Glu	Lys	Gln	Glu	Ala	Leu	Lys	Leu	Leu	Asn	Glu	Val	Gln	Glu	His																																																																																																																																																																																																																																																																																																	
														115	120	125																																																																																																																																																																																																																																																																																																
Leu	Glu	Glu	Glu	Glu	Arg	Leu	Cys	Arg	Glu	Ser	Leu	Ala	Asp	Ser	Trp																																																																																																																																																																																																																																																																																																	
														130	135	140																																																																																																																																																																																																																																																																																																

Gly Glu Cys Arg Ser Cys Leu Glu Asn Asn Cys Met Arg Ile Tyr Thr
 145 150 155 160
 Thr Cys Gln Pro Ser Trp Ser Ser Val Lys Asn Lys Ile Glu Arg Phe
 165 170 175
 Phe Arg Lys Ile Tyr Gln Phe Leu Phe Pro Phe His Glu Asp Asn Glu
 180 185 190
 Lys Asp Leu Pro Ile Ser Glu Lys Leu Ile Glu Glu Asp Ala Gln Leu
 195 200 205
 Thr Gln Met Glu Asp Val Phe Ser Gln Leu Thr Val Asp Val Asn Ser
 210 215 220
 Leu Phe Asn Arg Ser Phe Asn Val Phe Arg Gln Met Gln Gln Glu Phe
 225 230 235 240
 Asp Gln Thr Phe Gln Ser His Phe Ile Ser Asp Thr Asp Leu Thr Glu
 245 250 255
 Pro Tyr Phe Phe Pro Ala Phe Ser Lys Glu Pro Met Thr Lys Ala Asp
 260 265 270
 Leu Glu Gln Cys Trp Asp Ile Pro Asn Phe Phe Gln Leu Phe Cys Asn
 275 280 285
 Phe Ser Val Ser Ile Tyr Glu Ser Val Ser Glu Thr Ile Thr Lys Met
 290 295 300
 Leu Lys Ala Ile Glu Asp Leu Pro Lys Gln Asp Lys Ala Pro Asp His
 305 310 315 320
 Gly Gly Leu Ile Ser Lys Met Leu Pro Gly Gln Asp Arg Gly Leu Cys
 325 330 335
 Gly Glu Leu Asp Gln Asn Leu Ser Arg Cys Phe Lys Phe His Glu Lys
 340 345 350
 Cys Gln Lys Cys Gln Ala His Leu Ser Glu Asp Cys Pro Asp Val Pro
 355 360 365
 Ala Leu His Thr Glu Leu Asp Glu Ala Ile Arg Leu Val Asn Val Ser
 370 375 380
 Asn Gln Gln Tyr Gly Gln Ile Leu Gln Met Thr Arg Lys His Leu Glu
 385 390 395 400
 Asp Thr Ala Tyr Leu Val Glu Lys Met Arg Gly Gln Phe Gly Trp Val
 405 410 415
 Ser Glu Leu His Glu Gly Asn Ile Ser Lys Gln Asp Glu Thr Met Met
 420 425 430
 Thr Asp Leu Ser Ile Leu Pro Ser Ser Asn Phe Thr Leu Lys Ile Pro
 435 440 445
 Leu Glu Glu Ser Ala Glu Ser Ser Asn Phe Ile Gly Tyr Val Val Ala
 450 455 460
 Lys Ala Leu Gln His Phe Lys Glu His Phe Lys Thr Trp
 465 470 475

```
<210> 5
<211> 1485
<212> DNA
<213> Homo sapiens
```

```

<400> 5
atgaaaatta aagcagagaa aaacgaaggt cttccagaa gctggtggca acttcactgg 60
ggagatattg caaataacag cggaaacatg aagccgcccac tcttgggtt tattgtgtt 120
ctgctgttgt taaaagacag tcactgcgc cccacttggg aggacaaaac tgctatcgt 180
gaaaacctga agagttttc tgaggtgggg gagatagatg cagatgaaga ggtgaagaag 240
gcttgcactg gtattaagca aatgaaaatc atgatggaaa gaaaagagaa ggaacacacc 300
aatctaata gacccctgaa gaaatgcaga gaagaaaagc aggaggccct gaaacttctg 360
aatgaagttc aagaacatct ggaggaagaa gaaaggctat gccgggagtc tttggcagat 420
tcctgggtg aatgcaggc ttgcctggaa aataactgc tgagaattta tacaacctgc 480
caacctagct ggtcctctgt gaaaaataag attgaacggt tttcaggaa gatataatcaa 540
tttctatttc cttccatga agataatgaa aaagatctcc ccatcagtga aaagctcatt 600
gaggaagatg cacaattgac ccaaattggag gatgttca gccagttgac tggatgtg 660
aattctctct ttaacaggag tttaacgtc ttccagacaga tgcagcaaga gtttggcc 720
actttcaat cacatttcat atcagataca gacctaactg agccttactt tttccagct 780

```

ttctctaaag	agccgatgac	aaaagcagat	cttgagcaat	gttgggacat	tcccaacttc	840
ttccagctgt	tttgttaattt	cagtgtctt	atttatgaaa	gtgtcagtga	aacaattact	900
aagatgctga	aggcaataga	agatttacca	aaacaagaca	aagctcctga	ccacggaggc	960
ctgatttcaa	agatgttacc	tgggcaggac	agaggactgt	gtggggact	tgaccagaat	1020
ttgtcaagat	gttcaaattt	tcatgaaaaa	tgccaaaaat	gtcaggctca	cctatctgaa	1080
gactgtcctg	atgtacactgc	tctgcacaca	gaatttagacg	aggcgatcag	gttggtcaat	1140
gtatccaatc	agcagtatgg	ccagattctc	cagatgaccc	ggaagcactt	ggaggacacc	1200
gcctatctgg	tggagaagat	gagagggcaa	tttgctggg	tgtctgaact	ggcaaaccag	1260
gccccagaaa	cagagatcat	ctttaattca	atacaggtag	ttccaagat	tcatgaagga	1320
aatatttcca	aacaagatga	aacaatgtg	acagacttaa	gcattctgcc	ttcccttaat	1380
ttcacacactca	agatccctt	tgaagaaaat	gctgagagtt	ctaaatccat	tggctacgta	1440
gtggcaaaag	ctctacagca	ttttaaggaa	cattttaaaa	cctgg		1485

<210> 6
<211> 1431
<212> DNA
<213> Homo sapiens

<400> 6						
atgaggacct	gggactacag	taacagcggg	aacatgaagc	cgccactctt	ggtgtttatt	60
gtgtgtctgc	tgtgggtgaa	agacagtcac	tccgcaccca	cttggaaagga	caaaagtgtct	120
atcagtgaaa	acctgaagag	tttttcttag	gtgggggaga	tagatgcaga	tgaagagggtg	180
aagaaggctt	tgactgttat	taagcaaattt	aaaatcatga	tggaaagaaaa	agagaaggca	240
aaccaggccc	cagaaacaga	gatcatctt	aattcaatac	aggtagttcc	aaggattgaa	300
cacaccaatc	taatgagcac	cctgaagaaa	tgcagagaag	aaaagcagga	ggccctgaaa	360
cttctgaatg	aagttcaaga	acatctggag	gaagaagaaa	ggctatgccg	ggagtcttg	420
gcagattcct	ggggtaatg	caggcttgc	ctggaaaata	actgcatgag	aatttataca	480
acctgccaac	ctagctggc	ctctgtgaaa	aataagattt	aacggttttt	caggaagata	540
tatcaattt	tatcccttt	ccatgaagat	aatggaaaag	atctcccat	cagtggaaag	600
ctcattgagg	aagatgcaca	attgacccaa	atggaggatg	tgttcagcca	gttgactgtg	660
gatgtgaatt	ctctctttaa	caggagttt	aacgtcttca	gacagatgca	gcaagagttt	720
gaccagactt	ttcaatcaca	tttcatatca	gatacagacc	taactgagcc	ttactttttt	780
ccagcttct	ctaaagagcc	gatgacaaaaa	gcagatcttgc	agcaatgttg	ggacattccc	840
aacttcttcc	agctgtttt	taatttcagt	gtctctattt	atgaaagttt	cagtggaaaca	900
attactaaga	tgctgaaggc	aatagaagat	ttaccaaaac	aagacaaagc	tcctgaccac	960
ggaggcctga	tttcaagat	gttacctggg	caggacagag	gactgtgtgg	ggaacttgac	1020
cagaattttgt	caagatgttt	caaatttcat	gaaaaatgcc	aaaaatgtca	ggctcaccta	1080
tctgaagact	gtcctgtatgt	acctgctctg	cacacagaat	tagacgaggc	gatcaggttg	1140
gtcaatgtat	ccaatcagca	gtatggccag	attctccaga	tgaccggaa	gcacttggag	1200
gacaccgcct	atctggtgga	gaagatgaga	gggcaatttg	gctgggtgtc	tgaactgcat	1260
gaaggaaata	tttccaaaca	agatgaaaca	atgatgacag	acttaagcat	tctgccttcc	1320
tctaatttca	cactcaagat	ccctcttgc	gaaagtctg	agagttctaa	tttcattggc	1380
tacgtatgg	caaaagctct	acagcattt	aaggAACATT	ttaaaacctg	g	1431

<210> 7
<211> 72604
<212> DNA
<213> Homo sapiens

<220>						
<221> misc_feature						
<222> (1)...(72604)						
<223> n = A,T,C or G						

<400> 7						
acattttaaag	ctacttata	tccttggaaa	tagcaacaaa	tatcttagtt	attggactat	60
tataacctta	gtcatctt	tactgttgc	ttatgagaca	ctctccctgc	taatccttag	120
aacatcttgg	ttcttggtac	ttgactttt	gccctctga	catatagttt	atgtcagagt	180
gtctggcatt	tcaatgtgc	tctatcttac	aaatcccagt	aaactgctcc	actgtggctt	240
gtttatgtgt	taatactgtt	ttttttctgt	tataaattat	tttttgcctt	ggagtaagat	300
atcatcattt	tgcata	caaatctgaa	gttaaagaaa	attttaaaaa	tgttaattgt	360
ggaaaataac	aaatagatct	gctgagatgg	aggcttgc	taatgtttt	ataacaggca	420

acaaaacaaa	gaggcaggat	attttggtca	caactaaacc	taaattaaat	cctcatacaa	480
agccccatta	agataaatgc	tcaaattctg	ggaacatttc	acttgctttg	ccagcaattt	540
tacccttcag	agggtgtgga	tctaattcagg	ggaacaaact	accctgggct	taattctcat	600
taacaggac	taatttgc	aagcggcagt	actagctgaa	gtgatggta	tggaaggatt	660
cactgtgagg	attttgctga	ggtcctggc	acagggtagg	ggaactcacc	caggctgcaa	720
gatgctaaca	gttcagggtc	aaggcttag	tgtggactaa	ggtgcagtca	ggatgggaac	780
aggtgcaact	tggccaaaca	tcagttatgaa	gggcctgatc	tgagggcagg	gaaaggaggg	840
ggcattctgg	gaagcaagag	ttcctggtat	cctgttgacc	agagttctgg	cccaaggatc	900
aacgtatgaa	ttaaagtaga	aataccagaa	acaaagaaag	ttggcagaaa	ctaggagaag	960
cagagtctca	gccaacttgg	ctgggctcag	ccttggctac	tggccggca	gatgatagaa	1020
gagaaaacca	ggaacccagg	ctgaagccca	gtgggtggc	tggccacaca	ccatgcata	1080
ccttaaaggg	gtggcctaag	ggcatggtcc	gctccaaaaaa	aggaaagggg	gccccagaat	1140
atttctgaat	cccaactcact	gccaggaaag	aacctctcaa	ttcactcaat	agtgcattct	1200
cctgcttctc	aataggctaa	tactcttagag	aatatgggaa	caaggggagg	agggcttagt	1260
ggaacaggtc	taaactggcg	tttgaatttt	aagataagtt	aatcatacat	tggtctggc	1320
agccatgtct	cttagtcttt	acaaaagtag	aacacaaaaaa	aattcaatgg	aatctacag	1380
acacctattt	gcagatgagg	aaacacggct	atgaagattt	ggaagattgg	gaagaacttgg	1440
ccaggtgtgg	tgctcacgccc	tgtatccca	gcactttgg	aggccgaggc	tggtggatca	1500
cttgagggtca	ggagttggag	accagcctgg	gcaacatagt	aaaaccctgt	ctctactcaa	1560
attacaaaaaa	tcagcagggc	gttgtggtgc	ccacctgtaa	tcccagctat	gcaggaggt	1620
gaggcaggac	aatcaacttga	acctggtagg	cggaggttgc	agtgagccaa	aatcacgcca	1680
ctgtactcca	gcttgggtga	cagagcaaga	cttggttttaa	aaaaaaaaaa	aaaaaggaa	1740
gaactaaaaaa	tgtattttca	aagggctat	cacaatggt	cccaataaaag	agaaagcagg	1800
actcatgttt	aagaaaccca	tgagatgtgt	atggacctca	tggaagagct	tttgctttct	1860
aatgatctac	gtaacagatg	aaaagcagag	catagggcta	aggataaaaa	tacaacagta	1920
ataaggatt	aatatatttat	taagaaagct	aatgctccac	ataagcagag	gacattaaag	1980
ggactttttt	ttcttaagga	tatcttaatg	ttttaatgaa	gaagacatag	aaaggatag	2040
gtccaaactct	tggtattgtt	gcaggttgg	ttccatcgga	agcaactctga	gtctgagatt	2100
tgtatgcaga	aaattaattt	gaatgtgctt	ttcagatcac	ccaggtgggg	gagggagggaa	2160
accaggactg	ggcagagaga	ggctggctg	taaccaagtc	acaacaaagg	tgtcagctgg	2220
tcccatggtg	aattctggac	ctaggatggc	tgatcccaag	gcattccaa	ctggggcaag	2280
gaagttgtgc	tttaaaactt	ctcattgact	gtcagtcact	gggcatgagc	agtccccagg	2340
aaggggggat	gaccttgagc	aaggtggatg	tcttcagcca	agggcaayca	ctgggaagga	2400
gaacccagct	atgaactgtc	agctgccaac	actcccagca	tctgagagga	tgagggcttc	2460
aattctaagg	gcaggggctc	caagggcagg	ggtacggatg	gtggaatctg	gcaagtacct	2520
tgtggcttcc	actacagtcc	acccttgc	ccacttagtt	ccactggctt	tttttttttt	2580
tttctttct	gagacagtct	cactctgtca	cccaggctgg	agtgcggtgg	cacgatctcg	2640
gctcgctgca	accccgccct	cccagggtca	agcaattctt	gaacccctg	agtagctgg	2700
actacagatg	tgtgccacca	cacccagct	atttttgtt	tttttagtag	agacgggggtt	2760
ttaccgtgtt	agccagattt	gtctcgatct	cctgacctca	tgatccgctt	gcttggcct	2820
cccaaagtgc	tgggattaca	ggtgtgagcc	accgcacaca	gccagatcca	ctggcttcta	2880
tataatttct	gggtgaagct	aattcaggat	tctgatggac	ctgtttccc	gagggaaact	2940
tgtaaaagga	aagtttagagg	gacaaaactat	agcccctgccc	acagcagctg	ctgtcgagga	3000
caaaaatggt	gctcctcatt	tcccttaacc	acctgaccta	gattccctta	acccttagt	3060
ggcacctctg	ttgatggaaag	ttgtggctca	cykgkkgrw	krwymccct	3120	
gagtggtctg	agctcccagt	taccaggccc	ttctcaggct	gtggctgtt	cacttacctc	3180
cccagccatc	ccccactttt	tttcttgcag	actgggtctt	gctctgtcac	ccaggctgaa	3240
atgcagtgcc	ataaacctcag	ctcactgtag	cattgtatctc	ccaagctcaa	gccatcttct	3300
cacctctgcc	tcccaagtgg	ctgggactac	aggcacatgc	caccatgccc	agctaattt	3360
tttttattttt	tattttttt	tagcaatggg	attttgcatt	gtttcccagg	ctgggcttga	3420
actcctaagc	tcaagctatc	ctccacac	tgcttccaa	agtgtggga	ttacaggctt	3480
gagtcactgc	atctggccac	atttattctt	tttaaacgtt	aaaattgaat	gcaggatcac	3540
tgagagacag	gtgagtgtt	accagggtgc	caaacatacc	tttctcttcc	tttcctgca	3600
ctctacccctc	tcctgtatgt	caggacaatc	atgtatgtat	actcccttcc	ttgactgctg	3660
ctctctcaga	aggaacccat	tgtgttgggt	gagaacacat	catttgaat	ttagtaagac	3720
tcttgcgtgt	cctatggtag	aagcatccc	tctctggggc	caagatctt	aatgcacag	3780
agtccaaagt	cgtggaaacc	aaagcagaaa	ttaaaaaggaa	gatgactggg	attatggtaa	3840
gaactgtttc	cacccttgc	ttgctgcacc	catgtgttct	acctaggaga	tagcacacca	3900
tatactggtt	attcattttgg	attacatgt	gcatcccgaa	gaatgggcac	tcattctca	3960
ctggcatac	tgtcagagcc	tgcgctgcag	aggcttccc	attgctctgt	cagtgtgtt	4020
taggtcagt	ggatttcatg	gtcatgtgcc	cactgctgca	cctccattct	tgtaaaatgg	4080
gtccctctgg	tcaatgtgat	gccatgtggg	atcttgcgtt	aatagaataa	atactcagat	4140

gttctggctg aagcttaca	agcagaaaaag	gccaaaccat	gactgaaata	agcggtgagc	4200
ccagtcaaga	tgagttcctg	ctctttccag	gatagacgga	gtctagtgt	4260
catcaagaga	ctggctggc	tccttgaggg	atgggtctgt	tctgcattca	4320
tgaatgaggg	accctgtat	tgggctcatg	tacagcccc	atctctgcca	4380
tccattcatg	ttccttattgt	gccaacacta	gggtgtctgt	aatcactgaa	4440
ctatcattat	tattatttt	tttttttag	acagagtctc	gctctgtcgc	4500
gtgcagtggc	acgatctcg	ctcaactgcaa	cctctgcctc	ccggcttcaa	4560
cgcctcagcc	tccagagtag	ctgggattat	aggcatgcgc	caccacgcct	4620
tgatattta	gtagagacag	tcttttgcca	tattagtctg	tctggtctcg	4680
ctcagggtat	ctgcccgcct	tgcccttcgg	gagtgtctgg	attatagcg	4740
cttgcttatt	ttatgttgag	aaaactgtt	tcaattataa	ataagaaaaa	4800
atattttgcc	tttatttcct	ctctaattgt	gttctttaag	tagatgtgaa	4860
acatactttt	tctttactct	tgagagggtt	tttgagggtt	ccagcagggg	4920
ctcgatatacc	cttgaccaaa	gactggctc	tgtctatcaa	ggatggtcgt	4980
caagcacaca	gcttctggag	ggacgcacat	ggagtggtga	gggagggagg	5040
ctagccagct	agatcagcca	agcagaataa	accctggtag	tcaatgggt	5100
cagccagatt	gccctcacat	ccaactctta	gtgatcttct	cttaacat	5160
aggtctactg	gtacaaattc	tctaattttt	gcttggtag	gaaagtctt	5220
cacccctttt	ttttttttt	ttggagacaga	gtctccctc	gttgcagg	5280
gtggcctgat	cttggctcac	tgcaaaactct	gcctcccagg	ttcaagtgt	5340
cagccatctg	agtagctgt	tttacaggcg	tgtgccacca	tgcctagct	5400
ttttagtaga	gacgagggtt	taccgtgt	gccaggatgg	tcttcagcct	5460
taaaggataa	tttcacgggg	agaattctag	gttagtgtat	ttytcttca	5520
tatttcactc	cacttcttc	ttgcttgcgt	ggttctgaag	ataatgata	5580
cttggttctc	tgcaggtaa	gtgggttcat	acctctggct	tcttcgaga	5640
gtctttgatt	tcctacagtt	tgaatatgt	ataattatgt	atagacttgg	5700
cctttctgg	gtagtctgag	ctccctaagt	ctgtggtag	gtgtcttga	5760
gaaaattctc	agtcattatt	acttcaaata	tttcttctgt	tcctttgt	5820
tgtgccaact	tttaattga	tacatagtagt	tttacatatt	tatgggtac	5880
tcattacctg	catagaatgt	gtaaatgatc	tagtaaggt	gttggacta	5940
tatgtatcg	ttctatgtgt	ttggagctt	tcaagtctc	tcttgcata	6000
atacaatgcc	ttgttgtaa	ctagtcaccc	tgctctgc	tcaaacacta	6060
cttctgtcta	actgggtgtt	tgtacccatt	aaccaacctg	tcttcatccc	6120
ataccttcc	cagccttggg	tatctatcat	tctactctt	acctccatga	6180
tttaactccc	acatatgagt	gagaacatgt	agtacttgg	ttgccgtg	6240
cacttaagat	aatgacctt	tattccatcc	aggtaactgc	aaataacaag	6300
ttttctttt	tatggccaaa	tagtgttca	ttgtttat	agaccacatt	6360
catttgtaca	ttgatgaaca	ctgaggtt	tccatatctt	ggctattgt	6420
caataaacat	gggggtgcag	gtatccctt	aatataccga	tttctttcc	6480
tacccagtaa	ttggattgt	ggatcatgt	gtagatgtat	ttttagttt	6540
tcacatactct	tccatcatgg	ctgttattat	ttacattccc	atcaatagta	6600
ctttttttc	tgcatcctca	ccagcatcta	ttattttgc	cttataata	6660
taaccagggt	aagatgata	ctcattgtt	tttgatttg	catctccctg	6720
atgtcaagcg	ttttccata	tgcccattgg	ccattttgtat	gtttctttt	6780
gttgggttcc	tttgcccact	gtttatgtc	cttttttct	tctctctctg	6840
cacacatata	tcagacctt	ttaattgtc	ccacaattct	tgcattttct	6900
attctttctt	cttttgcata	ttcagtttt	gaagtttcta	ttgatattca	6960
tttcttcctc	ggctctgttc	agtctattaa	taagcccttc	aaagcccttc	7020
tttcttcctc	tctctcttt	tctctcttc	gttctttct	tctctatttc	7080
tttcttcctc	tttcttcctt	cttctcttt	cttctttct	tttctttcc	7140
ccttccttc	ttccttcctt	ctttccttc	tttcttc	cttccttc	7200
cttcttcctc	ctttccttc	ttccttcctt	ctttccttc	ttccttc	7260
tttcttcctc	tctttcttc	tttctttctt	tctttcttc	tttctttctt	7320
tttcgaccag	ttctcaactat	tttgctcagg	ctagcctaga	accctgggc	7380
ctctcagctc	agccttcaa	gttaggtgg	caaatgcgc	attctatcat	7440
tcctcatttc	tgttacagt	gtttttattt	ctagcat	ttttgtattc	7500
ttcccatctc	tctgcttaca	tacacattt	ttctctcata	tttccactt	7560
ggccttcagg	atattaattt	gttattttca	attctagcct	gataattcca	7620
tatatttgag	tctgtatcta	tgcttgggtt	gtctccctcag	actgcgtttt	7680
gatgtccctt	atcatttttt	ttggaaaaaca	agacatgt	tatcagataa	7740
ggtaaacagg	ccttaataat	gaggttttat	gtttatctgg	tttggaggtt	7800
actctttgct	gttaactttgg	tgccagaggc	taaaatttcc	tctggtcccc	7860

ctctcctgtt atgttgtgt ttccacagag tctccgtgaa tatggtgtga ggcttgaagt	7920
tcttagctg taaccctct tattatacag gagccttacg gatgtgggtt taatgtggga	7980
gggtgggctt aagtattcag cagtcctgtg atcaggcctc agtctttaa taagcctgag	8040
tactccctt tcccttctg catgttagag tggcctggag ttgggggtat ccattacccc	8100
aggttggtag gcttggtaa aaccacagtc tatcaagctg tggtaaaata gttccctgc	8160
agtctggctt tgtaaggat aacagagggc tctgggggtg tttcaaaatt gctactttc	8220
ctctctccct gtcagaagca caaggagatt tctcttgc ttcaccctga gagtctggtg	8280
gggtcctgg aggtaaaact cagggaaagtg tgagggcctc cacacaaagg gtctgctgaa	8340
gtttgttcca tagcctcagt tctctaattgg atctaagaag agttatttgc tttcaatttg	8400
tccaacttaa ttcttgtttt gaagacagaa gtgtactt ccaagcttt tataatgttga	8460
acccaacccc atattatccc caatttagcaa ttgcataatag caatgttaca ttgcatttt	8520
agaaatataa ttgatgtttt cctgtgtatc tttttccctt ttatgttgc gaattcattt	8580
cttagttctt ggaatttttca aatacatcc cttaggatat tctgtatata taatcatgtc	8640
atctgcacat agggacagtt ttatttctt ttctgtctg tatttcttat ttccctttct	8700
tgccttattt cagtgcttag aacttgcagc actatattaa aataagagtg gtaaaagtga	8760
acattcttc tttgtgtctg atcttgggg gaaagtattc agtcttcac cattgagcat	8820
aatgttagct gtaggtgttt taaatctta tccagttgac gaagttaccc ttatccaa	8880
ttttctgag agtttatac ataaatgtgt taaatttgt caaattttt tgcattgtatt	8940
gatatgatta tttgggtttt cttctttatc tactgcagtg ggttgcattt attgatttct	9000
attattgaac cagccctgcat ttcttggaaata aacccttattt ggtcatgtat tataatttctt	9060
tttttataat tgcgttattt tatttgcattt tatttgcattt aggatttttgcatttgcattt	9120
catgagggat ctggctgtt aggtttttt cccccctgca atgtctctgt ctgggtttgg	9180
tattaaggtt atttttttt ttttktttt gagatggat ctcgctctgc tcacccaggg	9240
tggagtgcag tggcacgatc ttggctcaact gcaaccttca cctcccaggt ttaagcgatt	9300
ctccctgcctc aggctctga ttagctgggatctacaggta caccaccacg cccgactaat	9360
tttggattttt ggtatattttt tttttttttt atgaactggg aagtgtggcc tcttcttgc	9420
tttctttttt tttttttttttagt acagtcttgc ttttttttttgc ttttttttttgc	9480
tcatggctca ctgcaggctc aaactccca gctcaagtgc tcttcctgc tcagccttcc	9540
cagtacaggg gcaggctacc acatctggcc aattttttttt ttttttttttgc ttttttttttgc	9600
gtctcaactat gttgcccaga gatctcaag caattcacctt accttggccctt ctcttctgt	9660
attttatggta agaattatttgc ttttttttttgc ttttttttttgc ttttttttttgc	9720
gaagctgtat gggctgttatttgc ttttttttttgc ttttttttttgc ttttttttttgc	9780
cttgcgtccc aggctgtat gtttgggtt gtttgggtt gtttgggtt gtttgggtt	9840
acgttcaggat gattccctgt ctttacttgc ttttttttttgc ttttttttttgc ttttttttttgc	9900
gccaccatgc cccgcttatttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	9960
cagactggc tcgaacttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10020
gggatttacag gcatgagcca cccgccccca gtttttttttgc ttttttttttgc ttttttttttgc	10080
tatacaatca atttgcatttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10140
agtttgcataa gtttgggtt ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10200
tayttgtgtt gtttgggtt ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10260
tggtgcacat gtttgggtt ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10320
ctctctctct ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10380
caaagaatca gtttgggtt ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10440
tctgcgtttt ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10500
tacatatttcg atgttgcatttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10560
tgcatttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10620
aatatttataa ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10680
tctgccttctt ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10740
ttcctctttat ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10800
agttttttca aatttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10860
tatataatataa ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10920
tggtggatgtt ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	10980
tttgggggtcc gataacccttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	11040
gaggttggta actctgtcaat gtttgggtt ttttttttttgc ttttttttttgc ttttttttttgc	11100
agttttttctt ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	11160
tcacatatttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	11220
atttaggattttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	11280
ctgtccctgtt ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	11340
ttgatatttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	11400
tacttataatttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	11460
gtacatagat atatataatttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	11520
tagtgcctc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc	11580

cggttttaac	catgtatggac	aggctggct	cgaactcccg	acctccagcg	attagccac	11640
ctggcctc	caaagtgtg	gcattacagg	tgtgagccac	cgtgccttgt	ttaatatttt	11700
taatccactc	agtcttgc	ttctactgt	gtacatagac	attcgcatgt	aatgtaaatg	11760
ttgatatgt	agagcttggaa	tctgttatgt	ttttcttgc	tctatgttt	ctcaatttt	11820
aatttctctg	ttttctttt	ttctgcttca	tattggctaa	tgaacacttt	gaatcattcc	11880
atttgatt	acctatagtg	tttttttagt	tgtcttttgc	catagcttt	ttaggggtta	11940
cttaagtat	ttcattat	gtacataact	tatcacagta	tattggtagt	gttattttac	12000
cagttcaagt	aaagtatggaa	aatgtttcct	ctctacattc	ctttacctca	tttataatat	12060
aattgtctta	ggtatttctt	gtacatacat	tttaaaccgg	atgagtgtt	tttttatttt	12120
agctatcaa	taattccaaa	aactcaagaa	aaaaagggaa	gcttactata	ttgaccata	12180
tttcattca	ccatgttgtt	tctccctct	ttatgcccc	tagttcc	ttctattgtt	12240
ttcgtttaga	gaactcccta	gccattctat	tgggttagat	ctcctagtg	caaattctct	12300
tagtttctt	ttctctgtga	atgtctttat	ttccctctt	gttccctggag	gacattctca	12360
ctggatata	gattctggc	tattgggtct	tttctttgg	cactttgt	agtgtgcagc	12420
ctgctgtcaa	aataaaaatt	aaaataaaat	aaaaatgaat	gtttcc	gtcacgttca	12480
tgaaagtata	attcactgaa	tgaggaggg	caccatctc	tataatctgg	agggccatgc	12540
tcacctctga	atagtacatt	tgcagagaaa	ttggggaaat	caaagtctgt	tgagaccagc	12600
aagataaata	aggcaaaagg	atacaaaacc	atatccaaag	agaaaatgtt	taaaggaact	12660
aaggctgttt	ctcctaaaaa	gaaaatagtt	ggagacatgt	gacctccaa	gaaacaggac	12720
tttttctatg	gggctccaag	gggtttctat	gagagaatga	taaaggagag	atttcagctt	12780
agtctcagga	agactttca	acaaccaaac	ctgccaaag	atggactg	ctgcctaagg	12840
attgtgttct	gacattaagg	gtatggaggt	atgggttaga	tgaatattt	acccaaatgc	12900
catagatatt	tcaggctatt	gtatgtgtaa	tatcatacta	ggcaactcc	cttcaatatg	12960
agtctctatg	atgtaaaatg	aaataggatg	tgttgcata	gagagttgca	gatttcattt	13020
tgatgttagc	gaccacacaa	aattacttgc	cctacataag	aacatgtt	tactctagtt	13080
gatgatgact	gcttatggga	aatgtgtctg	ctttgttag	aatcttgc	aatatatgt	13140
taattcaaga	tggtattata	aagtgcacata	tatgatttt	acatttgac	taaaataaac	13200
acttattctg	taccatgmas	tgtcttaggag	cttctacata	ttccattt	atctttat	13260
tacaagacag	ggaactaagg	catggagaga	tttagtaatt	tgtcaat	tacccatct	13320
gtaagtggta	aaggaaagat	tggaaccat	tctgctca	ggatccaggc	tcaaagccaa	13380
tatactatcc	accaccccaa	ctcttagt	tgatcaattt	gtcaattt	tttacagtt	13440
tttatctgt	aattaaggg	ataattgccc	agtcaataaa	tgtgtccct	tcaaaggta	13500
catacttaac	caatgggtct	actgggctca	gaacatttt	ggaactacga	tttgggtgc	13560
aaccaaaaaa	cctccagtag	attcctctga	acattctcc	gaggcaagtc	tttctccatg	13620
gagactggc	ttcattttt	gaattagcct	gaagttgtt	gaggtcaat	ctgatgaaaa	13680
gagcggcgt	ggaagctgga	tatttcgtt	cgtgattt	aacagtaat	gccaccta	13740
tgagaaggct	actttcttgc	atgtttgt	aaactggctt	tgaaggta	tctttaaaaa	13800
agaagcacaa	gaaagacgg	gactggcaac	agcctca	gaatacgt	ctaatcatca	13860
aggcaaccc	cactcatttgc	atgtgtgtca	tccgtgtat	tttattttt	taaagttatg	13920
tgccacaa	atgcattctt	tgctatacaa	aagagctgtt	gtttaattt	taaagatata	13980
aaaagggaa	aggagaaggc	accaaata	agattcttgc	gcattaatgt	ctcagacagc	14040
atagatctc	atagatgac	gtcagggaga	agagacacag	actttgc	ctcaggtat	14100
agatcaaa	tcatcagct	cctagtaaga	cagacctgg	tttgaagtc	tgcacagcc	14160
ttccttagct	ggtctggga	aaaattactt	cttgaagcct	cagtgttt	attttgtaa	14220
taagtggaa	tatattac	tgtcaggat	ttgtcagaat	tagaaataat	ttaaagaggt	14280
ccagcacgag	caggtcaatc	aagggaaat	gttaaaata	acaacagg	aatgtactc	14340
ccaaaagata	aagtggatac	atagatgaat	cttcc	cacagat	aataacctca	14400
aaaaaatatt	gccttagt	aacatgc	ccaagcc	gttcatc	caggaata	14460
gagaggatgt	ttggatat	ggggcat	aatttaca	tttgc	cttaca	14520
ggttagactt	caagttgcac	tgmc	gccct	ggctac	tccagcat	14580
agagttgt	aacctggggm	ccaaggac	caccc	tggcag	cactngcga	14640
ctctctcagg	gctgctgcag	ctgtgtc	gtccc	ggagn	ctac	14700
gaccatcgca	ttaagcc	cagtca	aggg	ctg	gcac	14760
cccaactactt	tttccc	ctgtt	tgcc	gagg	tttca	14820
tacaaggcgt	tctac	actcgt	ctgc	ctt	atgttttt	14880
ctgaat	ttgcca	atgtt	aat	ttt	tttttt	14940
tctttgaaa	aact	atgtt	taa	ttt	tttttt	15000
accgttc	tggat	agg	ttt	ttt	tttttt	15060
gcaggcccc	cccac	ccgc	ttt	ttt	tttttt	15120
gcccaccc	gtcac	ccgc	ttt	ttt	tttttt	15180
ggtcac	cagg	cccc	ttt	ttt	tttttt	15240
gcaggcccc	cccac	ccgc	ttt	ttt	tttttt	15300

ggataatcg	tgaagtcacc	agatcccagt	tagagacagt	tccaaagt	ttt	acaaaacgca	19080
agataactgt	ccaagagctg	taatggctta	atcatcttgc	aataatacct	ctca	ctgtcaag	19140
ctatatacata	agaaaataaaa	atctacattt	taaaaaatttgc	gctgtatca	taggtgact	19200	
aactgtccct	gttacccag	gactcagggt	ttcccaggct	gagggacaat	gggtactaaa	19260	
accaggacag	tcccaggcaa	actgggacgg	ttgatcaccc	tacccaatgg	cctcatctgt	19320	
ctcattaaaa	tatctggatt	acttcgtgcc	tcaaaaat	cctcggctta	cctgactcta	19380	
gacagtcaag	aagctttat	taatttgtcta	atgtatgcca	ctttctggag	gtgatattgt	19440	
tcaactgata	gatgagcatc	actgattgaa	atattttgtg	gttttcatgc	tttgatctt	19500	
gtgctgata	ccccacatgg	atatttctgt	ttccaagttt	gtgtcacttc	tggagatatt	19560	
agcctgaact	cagcaaataa	ggtatgatcaa	aatgaacctt	tccagtgaat	tctgtccttc	19620	
tttgtctgtt	gtcatactgac	ttagatatac	tggccggcgc	cggtggctca	cacctgtat	19680	
cccgactt	tgggaggctg	aggtgggtgg	atcccttggg	atcaggagtt	tgagaccagc	19740	
ctggccaata	tggtaatga	agccctgtct	ctactaaaaa	tacaaaaaatt	agttgtgcgt	19800	
ggtgaagtgt	gcctgtatc	ccaggtaactc	aggaggttga	ggcaggagaa	ctgttgaac	19860	
caaggagtcg	gaggtgcag	tgagcccaga	tcacaccact	gcactccagc	ctggcaacag	19920	
atggagactc	catctaaaaa	aaaaaaaaaa	ttagctggat	gtgtggcac	atgcctgtaa	19980	
tccagctac	ctggaggct	gaggcaggag	aatcgctga	acccaggaga	cggaggttgc	20040	
agtgggacga	gatcgccca	ctgcactcca	gcctgggtgt	cacagcgaga	ctccatctca	20100	
aaaaataaaaa	atcaataaaa	aataaataaa	tacataaata	aatgaacaca	taaatttagat	20160	
ataccaagaa	aagtataaaa	aagtcttgc	tgaacataaa	tgaaaat	ttgg	ccaaaatagg	20220
taacagacag	ggtcaggcgt	ggtggctcat	gcctggaatc	ccagtactt	gggaggctga	20280	
ggtgggagga	ccacttgagg	ccaggagctc	aagaccagct	tggcaacaa	agcgagacct	20340	
catctctatg	aaagaaaaaa	aaattttaaaa	gacgtatga	acaacttgc	tgccttcctg	20400	
cctgccttcc	ctaaaatact	aagttaatg	caatacatgc	cctgacatttgc	tagttgtctt	20460	
tcacaaagat	ttactgaata	ttactcttag	gctaaacctt	gtgctatcat	ttggggctac	20520	
agggatgaaa	garaatttgt	ttgccttcc	aggaacctt	catttagtac	agagatttag	20580	
tgtgtctgg	ttggtctctg	ttctccccct	ctcctccaga	tctattctct	atttcttccc	20640	
ctctccctgc	ctccaggaaag	gggggctgta	tcactgtggc	tcattgtct	gtggcttctg	20700	
attgagttca	gccaatggga	gcatmattt	tggcgtggca	gctctggctg	ttcctctgca	20760	
attgcagttc	cctcctccaa	gctctggct	ctcactgggt	tcctgtatcc	aataacagac	20820	
tcccttaact	gcccaacttct	gaaaacagtt	tctgcataaa	gctattttca	taatttccctc	20880	
tgtgtgcct	tctgttccct	gtgttagaccc	tgattcaata	ggaaaataaa	ttattgaaat	20940	
agaggaagag	acaggttaata	atagaggat	acacaagtag	aatggggca	taaatggcgc	21000	
attttcgcac	catcaagagt	gcccatgtaa	cagagataag	taaatgcac	tttagctgaa	21060	
cactgaagga	taagaaacaa	agggggagaaa	gacctagaag	gggcaatata	cagcaaggag	21120	
ggaaaataaa	ctactgtca	ttcatgccag	tgttagcatt	taggacatct	ggaagctaga	21180	
ggtggagtgg	aaaaggagag	agtatgataga	gctgggtca	gagagttca	gggtggggaa	21240	
ggtcttgcag	gacctgttag	gtaattgtaa	agcatttgg	tttattctg	aggtcactg	21300	
gggtgtcatt	agagactttt	gagcaaagag	gtacatgctc	tgactgaact	ttattctgtg	21360	
aacaatcaga	atcaactaga	ttgatttaag	tatgggtata	ccatgaaaga	aaattactta	21420	
agatccttgc	tactcaaagt	atgagccagg	accagctaca	ctggcatmag	ctggaaactt	21480	
gttagaaatg	cagaatccca	agtcccccgag	acaaactgaa	tcagaacactg	cactttaaca	21540	
agatcccagg	tggccattt	gtatggtaga	gtttaagaag	cattggttt	aaagatccct	21600	
cttgatagga	gcatgaaaga	tacatttgag	acagaataga	caagttagag	acaggtggga	21660	
agggcctaaa	acagggcaga	atgagggagg	taatgagga	gacaaataca	aagaagaaa	21720	
atgcacagca	cagttagac	atttcttaaa	tactaaaaa	aattttttt	gaaataatga	21780	
tagattcaca	ggaggttgc	aagaaatgc	taggaagaa	caatgcaccc	tttaccacgc	21840	
ctccctccatc	attaacatct	tatgcaacta	tattataata	tcgaaaacaa	tcaagtgaca	21900	
ttgctacaac	ccatagagct	tattcagatt	tcaccagtt	ttagatgcac	tcgtgtgt	21960	
gtatgcatat	agctctgtgt	aattttatca	tatgtgaagc	tttgctacca	caatcaagat	22020	
atccaagcca	ttagcagaag	attttctgtt	gttacccct	tatagccaca	cgcatttcctc	22080	
catcattaac	ccctggaaac	aactaatctg	ttcatctcta	taattattct	atttcacgaa	22140	
cattttgtat	atgggtacat	gcagtgtgt	tctttggga	ttgttaacag	agcaagacag	22200	
gatctcactc	tgtcacccag	gctggagtg	agtgtcgtga	tcttggctca	ttgcagcctc	22260	
caccccttgc	gctcagggt	tccttccacc	ccagcctcct	gagtagctgg	gactacagac	22320	
acacgcccacc	tcacctggct	aattttttgt	atttttataa	tgatggggtt	tcaccat	22380	
gcctaggct	gtctagaact	cctgggctca	agtatccaa	ccgccttgc	ctccaaaat	22440	
gctggggat	caggcatgag	ccaccaccc	caccagctt	ttcattcata	ctttcttga	22500	
agttcatcca	agttgtgtgt	atcaataactt	cactccttcc	agttgtctgag	tagtattcca	22560	
tggcttggag	gtgctagagt	ttattcatca	cattcaaccc	attgaaggmc	atttgggtgg	22620	
cttccaagtt	tccagtttgc	ggcttattat	aacaaagtt	ctatgaacat	tcatatacaa	22680	
tggatactt	ttgtatgaat	gaatggata	aatggatag	tttttagtga	tcagctatgt	22740	

gggatgaaga	gtggcataaag	tagtaaaaag	taaccctcaa	tgcaatgtgc	agccagcaag	22800
taccacaaaa	agagtttatt	ttgtttcata	catatatttc	tatataataca	tacacacact	22860
ttattaataa	ccaaatagta	tcctttcaa	atgaaaacag	taatttaaca	taaactatga	22920
acttaaaaatc	taaagtaaaa	cttgacaca	gtgatgcaga	atttttgct	ccttagctca	22980
gttaggtctg	tgttcttac	ttatgaccag	gaagaactag	gtaccctgac	atcaaagaat	23040
gagtggcata	gaatttata	agcaaaaagg	aaagctctca	ggaaagagtg	gggtcctgaa	23100
acagagttgc	tggggcccc	tgcgtagtt	aatacaaggg	cttctatata	aaacctgtat	23160
gggcccagtt	ccctttcg	ataaggcatg	aattcctggt	ggctccaccg	ccctccccca	23220
gtgcgtatgt	gggaccttc	tccactaggg	acatgtttag	acaagctccc	tgtcacgtt	23280
cccttatctg	cacaaaacat	gggttggagg	ttctccgggg	acccttcctt	tactttctgc	23340
ctaaagcaag	ctggctaact	ccttcaca	atactaaaga	catacagaca	atgttctca	23400
gtacaatcat	tttaaatatt	taagtaaact	taaaatggt	ttgttttga	tttgacattt	23460
taaaagatat	cgctttcta	aaaattctgt	gttttagtt	gttgggctc	ctattctaca	23520
atgtgttatt	actattaagc	attcttgat	catgcattc	ctcaaatagt	ttttaaatta	23580
cttttaattt	gaagaaggaa	cattctgtac	agtacggaa	agtgtcaaa	atgaaaatga	23640
ggcagggtgt	ggggctcac	gcctgtatc	tccgcactt	gggaggccta	gggggttgg	23700
ttgcttgagc	ctaagaattt	gagaccaggc	tggcaatat	gttataaccc	tgtgtgtaca	23760
aaaaatacaa	aaattagcca	ggtgtgggt	cccaagcctg	tagtcccagc	tacttggaa	23820
gttagggtgg	gaaatcttag	gtgacagaat	gagaccttgc	ctcaaaaaaaaa	aaaagaaaaa	23880
agaaaatgtat	aaaggataca	tatcaggaaa	acatgcattg	tatttgtat	catctacttt	23940
agagtaattc	cagtagatg	gttttttgc	tgttgcgtt	tttatttttgc	agaaagggtc	24000
ttgcgtgtc	acccaggctg	gagtgcagt	gtacatctt	ggctcactgc	aacctccgccc	24060
taccaggttc	aagccatcct	cccaactcag	cctccagagt	agctggact	acaggtgtgc	24120
gccaccatgt	ccagataatt	ttgttatttt	tgtagagatg	ggattttgc	atgtgcctg	24180
aatgcctggc	ctcaagcaat	ccaccctcct	cagcctccca	aagtgcgtgg	attgcaggcg	24240
tgagccacca	cacccagccc	cagtgtatc	gtttttctt	ttcttttttta	ttctatgttt	24300
taatgaattt	acacgttacc	caaatgttcc	ctagttttc	tgccttccaa	gatcactctg	24360
gaagaatattt	taagaatata	ccaaataaga	atatgcaatg	cctcccccata	gggtggcagg	24420
aagaacaccc	ctccccaga	ttgttatttg	cgcctctggc	tgggaacggc	ttccccatgc	24480
tccttaggtca	gggtcctctc	ttggcatgac	actaccacca	cagtgcagac	ccacaacagg	24540
gagaaggacg	gccacagtcc	ctcaatcccc	ctttccaag	atgtgcacag	cctgactct	24600
aactccccac	cactgactt	aggggaaaaa	cagcacaggg	cagggaaacga	tttccatgt	24660
caccaacctt	tctctgaggg	aacctactgg	ccacccctt	cttaggacca	gcccatcgtc	24720
cacaacgtgg	aagtccagct	tccgttcaa	tcggagttct	ttcttcatga	catitttttg	24780
caaagtcccg	gaaccacag	ctctgagact	ctggctgtcc	cccaacccac	cccatcttcc	24840
ttgtcctcac	ccctgttcag	gagaagccaa	aacatcagtc	agttcccaag	taatcaagcc	24900
tggctttctc	acccagggtc	cgccccagaa	caaccaccgg	cttctttcag	tgtagccaaa	24960
aggctattgg	agtctctca	aatgaaaagag	attttatcaa	aggcttgag	aagaaaagaa	25020
aaagaggattt	atataataaa	acgtaaaaca	acaacatata	acacacaaac	aaaataaaac	25080
gtgagatatg	attctcccg	agtgtttgc	gcaggaatgt	tcttgggcat	ctgccttccc	25140
ccaccacgc	cccccacaag	gcaaggccag	ttcacccctca	gtgctcaacta	ctttgcagtg	25200
ttcatagaat	attttaata	attttaggg	gctccctaa	atttctttt	tttttcttc	25260
tttctttaga	gttgcgtccc	tctcggttgc	caggctggag	ttcagtggca	tgttcatagc	25320
tcactgaagc	ctcaaattcc	ttgggttcaag	tgaccctct	acctcagggc	catgaggacc	25380
tgggactaca	ggtatgcacc	gtataccgg	tctatctttt	atttattttt	ttattttagag	25440
acagagtcta	gctctgtcac	ccaggccaga	atgcagtgc	acgatctcag	ctcactgcaa	25500
cttctgcctc	ccagatttaa	gggttctct	tgccctcagcc	tccctactag	ctgggattac	25560
aggcttgcac	cacctacgtc	cggttaattt	ttgttatttt	agtagagatg	tggtttcacc	25620
atgttggcca	ggcaggtctc	gagctcttgc	cctcaagtga	tccacccggc	gtggcctccc	25680
aaagtgttgg	gattacaggc	gtgagccact	acgcccagcc	tattttattt	tataattttg	25740
ttttagacaa	ggtctagctc	ttttgcctgg	gctggagtgt	agtggtgc	tcacgattca	25800
gtgcggccct	gatctcttgg	tttcgagtg	gccttagcct	cctgttttgc	tggactaca	25860
ggtgcatgcc	accacccatgc	taatttttta	aaattttttt	gtagagacgg	ggtctcaccc	25920
ttgtgtccag	gctggctca	aactcctgg	ctccagtgat	gctcccacat	ttggcttccca	25980
aagtgttgg	attataggag	tgaactactg	tgcccagtct	ttttaaaaaaa	tttcaagag	26040
atgggggtct	tgctatattt	cccaggctgg	tctccactcc	ttgtgtttaag	cgatcctccc	26100
acctcagcc	ccttgcgttag	ctgggatgac	attacaggca	cacactgcca	ccactggctc	26160
taaaacttct	tctgtccat	ttgtgcactt	cacccaattt	cctctttgt	gtatatttatt	26220
agatcttagg	gtgaaaaaaa	agtcaacagc	tatataatgt	cctcaaagtt	ttgtacgtat	26280
ctgagcagtc	atcagggttgc	cagtgcagag	ggatgaactg	ccgtcccgcc	acctaaaaag	26340
cattagtgtac	catcaggaa	ccgtcagatg	catgccagac	taaagcagag	tgaggctgt	26400
ctgggtgtctc	tgtctgtggc	tgcccggtct	ctcacttccc	tgtcttgc	tgtgccttttgc	26460

ggagggttgc	cctgaggttgg	catctcaggg	tctcagtctg	ctggtttccct	gshttccct	26520
tgaaggctac	tgctcccaca	aggcaaccac	ggtccccgct	ctggctctca	ctgagctcca	26580
gaatcattgt	ttcctccct	tacccaagtg	agaataatta	tgtttattc	cagaaccctg	26640
acaaatgaag	aggcctaaaa	accccctagg	tattatccga	tcttggtgat	cagggaggtg	26700
tttggtttgc	tttttaatgc	agacacatag	ttttaaaaat	tattcactc	atctactgt	26760
agaaaaagtca	tattaattca	caattttgtat	taaaacaaac	aaacaaacaa	acaacttctg	26820
tgacattttg	gctaacaagt	ggttcaatat	taaagctttg	tccaccagg	gcagtggctc	26880
atgcctgttag	tctcagtgt	ttaggaggt	gaggtggag	gatcacttga	ggcaggagg	26940
tcgaggctgc	agtgaaccat	gatctacta	ctacactcca	gcctggcaa	cagagtgaga	27000
ctctgtctct	aacaacaaa	caaacaaata	agtatagttc	tttcaagcat	ggcagacaat	27060
ctgtctcctt	tggcctgggt	ctctcactgc	cttttagata	aaaatctggc	aataaccaaa	27120
gagttttcat	aaggcctgtt	gatctattta	taagacatgc	atataattta	cttgaccatt	27180
ataataccat	tataataatc	taaatctatt	ttctttatcg	tccaataatc	cacagagtca	27240
gcacacaagg	attcttttt	ccatatata	gctgagttt	ccttatctt	catgcgtgac	27300
gccaaagtgt	ttcaggttct	gatgtttt	ggatttgaa	atatttgc	atacacaatg	27360
agatatctt	gggatagaac	ctacatctaa	acacaaaatt	catttatgtt	tcatatacac	27420
cttatacacg	tagcctgaag	gtaaatttac	acaatattt	taataattt	ccacataaaa	27480
caaagttgt	atacattgaa	ccatcaggaa	gcaagggtgc	cctgtctcag	ccacccacaa	27540
ggacactctg	tagttgtctt	tcattcctga	ttccgaattt	atacgctact	gacaagcaat	27600
cattttctta	cacttattca	cacaagagca	cttagtaaaa	aatatgacat	atatatctgg	27660
catgctcaga	aaagctattt	tgcagcagaa	aggagctggg	agggtccctt	tttccctt	27720
gggacacgga	ataaaattgt	tattatgtc	ctgcatttt	actgtgaccc	catcacatga	27780
ggttaagtgt	agaatttcc	acttgtctt	ctgtgcttaa	aaagtttga	ttggccaggc	27840
atggtggctc	atggctgcaa	tcccatca	ttagaggcc	aaagcagg	gtcatttga	27900
ggtcaggagt	caaaaccagc	ctggccaaca	tggtaaaacc	ctgtctctac	taaaaataaa	27960
aaagtttagcc	tggcatgtt	gtgcgtgtt	gtatcccag	ctactcggg	ggccgaggca	28020
ggagaatctc	ttgaacctgg	gaggcagagg	ttgcagagag	cagagatcac	tccattgcac	28080
tccagcctgg	gtgacaaagc	gagactctgt	ctcaaaaaaa	aaaaaaaaaa	aagtttagat	28140
tttggagcat	tttggatttt	gattttgc	ttaagtgtt	tcaagctgaa	aaaaaaatcc	28200
gatttgc	ggacaaactt	aacaaaacaa	gtgagatatt	ccaatactat	atatatgctc	28260
ctgtttat	ttcctaatt	aatttggact	tggacaact	tggccaattt	tggatttagag	28320
gtgagactt	aatgttact	gtacaaggaa	tagaacatt	cattcctcta	tgttatcaaa	28380
tacttatgtt	atttmccca	tcctgctgtc	atgcagatcc	aagaaccaa	ttaaaacaca	28440
tttgccgggg	tcataataat	gtggccagaa	tttaagaaa	aacttgattt	ttaattatgt	28500
atgattttgc	ttgttagtc	taccgattt	tattgctt	agtttactca	aaaataaaagc	28560
gccccacttc	gaagactcaa	tagtcttca	ttcatgtggg	ccttataat	gcacggccc	28620
agatgcaata	catctggcgg	tctgcttgg	ttggccactg	gattgaagga	ggcagagaag	28680
tctggatga	ttcccaaatt	tctggatctg	gtgacaggaa	gatatggcag	ggcagactt	28740
ggggaaaaaa	ctgggttagg	aactgttga	actgaaatcc	ctgaggst	tgccgacaga	28800
gagacagccg	gtagaagggt	gtctttgc	gtctgtgg	ccaggtact	tcatcgaaag	28860
agagtttcag	gcagtagaaa	taagagcacc	caggacaaag	ccccaggaa	gagaaacatc	28920
tgacggagga	cagagaaga	agggtcaga	atgagactga	gcaggtgtc	tgtgtctgac	28980
accagagcc	gacacatagt	acgttagta	cactcagca	ataccgtaac	agagatgaat	29040
ccaaggctgg	gggaggtggc	tcacgcctgt	aatccccaca	ccttgagagg	cctaagtgg	29100
agatctctt	gagtccagga	gttcgagacc	agcctggaa	acatggttag	accttgcctc	29160
taaaaaata	aaaattaaac	attaaaaaa	gagatgaatg	cataacctgg	ctgctggagc	29220
caacatgggt	tgggtgagcc	cacttta	agcagctat	aaaaatttgc	ccttggattc	29280
tgaggcttct	gtcctacgtc	ttggctgtc	ctcccagatc	accttctggc	cggtcccaag	29340
tccacttccc	tgctccttgc	ctcccttct	cctggctctc	ctcacactt	ccttccttac	29400
tccccttccc	tctgtggccc	ttgctcagcc	cagcacagg	agagccctgt	gccacctt	29460
acagctcacc	tgcaccccttgc	catcttca	aaaggagcac	ctacaagata	accacccccc	29520
cacccctttt	ttttttttt	tagtagtaca	gattgcctt	catagcataa	ttggcttca	29580
ttattatcct	taaagaccct	ctttctgtt	cggattggaa	tggataaaat	aaagaagatc	29640
gagaggttga	agaacccatc	ctgttttgc	agtgagaagg	ggatagaatt	aaaaggat	29700
ggagggtctca	ggcatgggt	ctccagngt	tcatcccagc	tactcaggag	gctgaggcg	29760
gaggatcact	tgagcccagg	agttggagac	tatagagcac	tatgattaca	cctgtgaata	29820
gccactgcac	tctagcctgg	gcaacatatc	aagaccctgt	ttcttagggac	aaaaatatnn	29880
ttaataaaat	ttaaaaattt	agggaaaggt	aaccacatcc	tgctacaaan	aaaagaagnt	29940
ggagaggtt	gangaggacc	aagagctaat	ggcatcattt	acacaaaag	agatgttta	30000
aaatcagttt	ctcatccat	tccacaagga	caataagtaa	gaaagaggat	agaaagtcac	30060
cggtggattt	ggtcatcatt	ggcttcttgc	tgacttttagc	aacaaaaatt	cttggggta	30120
gtgagaggtt	gaccctgggt	gactgggtag	ggggttccctg	gatcatgagc	aaaggcctgt	30180

gccagccaat	ggccccact	acactctgcc	ccggccttc	tcatctcaa	aaatggc	30240
cccatccaa	agctcaagtc	aagaatccag	cagccac	tttccctca	30300	
cctcacagtc	cagtc	ccatc	ttccaaataa	gttccaaaty	tcaccactc	30360
aagaggmacm	attatcttt	tcctggtgat	taaaacagct	tcctaactgg	sttcccttct	30420
accttgctt	cccata	gttccatc	ggacaacaac	agtggc	tttccact	30480
gcattattgt	tgcccttgg	gaaatc	acaattatcc	agtcttgctt	caaaaatgt	30540
atgtatttct	gacttttac	cctgcctac	ttacaggata	tgcacat	tgatctccag	30600
ccaatatcac	acttcttc	tcactgact	ctgcac	tggccaagtt	tgttcccact	30660
cctcttgac	ttgctctc	atctc	aggcgt	cttgc	aggccagccg	30720
gcttcacaca	tgtccac	gtgcac	gcgc	ctc	atctgtactc	30780
tattttgccc	atctt	gaaatc	tttgc	tttgc	gggttggatc	30840
gcactgggtc	ctgaaaattt	tgtagctggc	tctacttca	gggattgtat	cagaagtctc	30900
ctcctcaag	aggc	ccctc	cgccacta	tcctca	gctc	30960
ctggctatcc	catcattccc	acttaattt	tttgcataa	gttgc	ttttatacat	31020
tctggcttct	atatttattt	gtgtattgtc	cagtc	ccttggaa	gcagcgtgg	31080
cacctgcaac	gcagagacca	ctgtatcccc	ggtgc	gtaatgagtg	cctgatacat	31140
ttgccaata	aactattcc	agggttga	ttgttggaa	caagaga	actattctgg	31200
gtaaaatgga	aattttaat	gtacttgata	tttatataca	tccta	taattaaatt	31260
tgtgtatgtc	tgtat	aaac	ttgttgc	atgtgtg	agtggat	31320
aattttctca	ttttgtattt	aaactagatc	tttttgc	aaggatttga	agtctagatt	31380
caatgcctac	tttgc	actat	ttatgttat	gaaactaaa	caattat	31440
tttgagatgg	agtctg	tcgttgc	gactgg	ca	ctcagc	31500
actgcaac	ctac	ccca	gttca	ctc	cgagtgg	31560
ggactatagg	tgcgt	ccac	cacaccc	taattt	ttttagt	31620
ttcaccatgt	tggccagg	gttctg	gac	tcctg	ctgc	31680
ctcccaa	gttggatt	aggcat	gagc	cactg	ggcaata	31740
ctgaattttt	ttttttt	gagatgg	ctcg	ctgt	tgccc	31800
gacgctatct	cagct	cac	aaac	ctc	ttttagt	31860
gc	ctccc	gag	cc	tc	taagca	31920
tttagtaga	ttgggtt	ccat	gttgc	cagg	cttgc	31980
atgtgtctc	ctc	agc	tcaaa	actc	gacc	32040
ctagtc	ttttt	aaa	agg	tta	ttttagt	32100
ggctcaataa	aa	cat	tta	ctaa	tttgc	32160
aagatagat	ag	ctt	at	tttgc	atctca	32220
actatgtac	gag	at	tttgc	tttgc	tttgc	32280
gagtaac	ttgg	at	tttgc	tttgc	tttgc	32340
cca	gttgg	at	tttgc	tttgc	tttgc	32400
taagt	cat	tttgc	tttgc	tttgc	tttgc	32460
ctg	caa	agg	tttgc	tttgc	tttgc	32520
attgt	at	tttgc	tttgc	tttgc	tttgc	32580
ttact	tc	tttgc	tttgc	tttgc	tttgc	32640
tttct	tc	tttgc	tttgc	tttgc	tttgc	32700
cag	ctg	tttgc	tttgc	tttgc	tttgc	32760
tttct	tc	tttgc	tttgc	tttgc	tttgc	32820
tttct	tc	tttgc	tttgc	tttgc	tttgc	32880
tttct	tc	tttgc	tttgc	tttgc	tttgc	32940
tttct	tc	tttgc	tttgc	tttgc	tttgc	33000
tttct	tc	tttgc	tttgc	tttgc	tttgc	33060
tttct	tc	tttgc	tttgc	tttgc	tttgc	33120
tttct	tc	tttgc	tttgc	tttgc	tttgc	33180
tttct	tc	tttgc	tttgc	tttgc	tttgc	33240
tttct	tc	tttgc	tttgc	tttgc	tttgc	33300
tttct	tc	tttgc	tttgc	tttgc	tttgc	33360
tttct	tc	tttgc	tttgc	tttgc	tttgc	33420
tttct	tc	tttgc	tttgc	tttgc	tttgc	33480
tttct	tc	tttgc	tttgc	tttgc	tttgc	33540
tttct	tc	tttgc	tttgc	tttgc	tttgc	33600
tttct	tc	tttgc	tttgc	tttgc	tttgc	33660
tttct	tc	tttgc	tttgc	tttgc	tttgc	33720
tttct	tc	tttgc	tttgc	tttgc	tttgc	33780
tttct	tc	tttgc	tttgc	tttgc	tttgc	33840
tttct	tc	tttgc	tttgc	tttgc	tttgc	33900

agaaaaaatac	ccaaagtgt	gcctcttcca	ttggcccaac	catgcacatctt	tcaggatagg	33960
mcacatctgt	ttataagggt	tgattgttagt	tgctcataag	tgacattttag	ctgtttaaaa	34020
taataatagt	tcgagtttg	ctatgagctg	atctgtttc	caagagagct	aagagtttc	34080
cagctaaaag	agggaattag	tggtaatca	aggcagctga	catggggtgt	ggctgggcct	34140
tgaatgtgtg	tcactctctg	tgcccaggca	gagcaaagat	aaactccaga	ctgcattgtg	34200
ctcagagacc	aggacaacg	tcatagggcg	cctaaaaggc	aggtggccca	gttcagaatt	34260
gtcaagggtct	gacctgctt	gacaagtgt	gagtagatag	taaggatgga	ttggctagtc	34320
tctcaaaaact	tgcaaacagg	gcmcaggtga	tcttgagatt	tcaggtgccg	gagagacc	34380
tcgtgttagat	tccagagttg	gctatcatga	ctaacagctg	tctaagtgt	ttttaatga	34440
atcattaagg	gctacatttt	cagttcagct	aatcaagtag	caaattacgg	tgggtctaaa	34500
atacttatct	attgcattat	gtatatgcta	gactttatca	ctttagtgg	ttatatcgct	34560
tcatataacta	acagtcaaaa	aatgcacaaac	gagaaaacaa	acaacaaaaa	atgccacatg	34620
actgtgtaaa	tacactttc	aaactgtttt	atctaagagt	ttactcactt	tcacattgtg	34680
gcttatagta	tttcaatct	aagagactaa	ttttgcttac	atagggaaact	acatatttt	34740
aattgaaaat	taaaaaaaaata	tttttaaggt	ttaatgagt	cctatcaaaa	cacatttgc	34800
tataggaagg	tagcccaagg	tcactgttg	caattgtga	cacagcctgc	cctmtagtgt	34860
tttcttctaa	acagcaccaa	attttagatc	atagttgtaa	atctcaaaat	gttgggttaa	34920
taggattaaa	cactgtgtca	tcaaattgt	aggacacagc	taaatccctg	acacggatga	34980
aaattaaagc	agagaaaaac	gaaggtcctt	ccagaagctg	gtggcaactt	cactggggag	35040
atattgcaaa	gttagtggta	aatacactat	attaaaaagt	tttggtttgt	aaatagagta	35100
atgatagaag	aagagttgt	tgaaatgtat	tatgtaaaat	gtgataactg	cataattact	35160
atgacatgtt	ctagtttacg	actgtattaa	aaagacattc	caaagtgtga	tcaataatg	35220
gagggttctg	tgggttttt	ctttttaaaat	tagtaatat	acgtaaagca	gataaaatatc	35280
ccctttgtgg	gagttaaaat	aatctaactt	attttatagt	tttaacttta	ttaaagcata	35340
cgactattct	aacttattt	acttttctt	gtaaaagttt	aacctctgt	tttagaatat	35400
ttgttaactaa	tgtgtatcga	attaaactca	aaggaaatt	cattaactga	gaagaaaaaa	35460
ttttaactgt	gcactattca	catagcataa	tgggtttat	aaggagtatg	agaaaaatgt	35520
gtgtgggtgg	ttttgctt	ttaaaaaata	atagcgaacc	acgtaggtaa	aaactcactt	35580
gagaacatag	actttggag	gaaaaatgcca	ggtgtggtg	ctcacgcctg	taatcccagc	35640
actttggag	gccgggggg	gcccgtacc	tgagtcagt	agttcgagac	cagcctgacc	35700
cacatggaga	aactccatct	ctactaaaaaa	tacaaaatta	accgggctt	gtggcgatg	35760
ccataatcc	cagctactt	ggaaggctg	ggcaggagaa	tcacttgaac	ctgggaggt	35820
gagggtgcgg	tgggcgaga	tcacgcccatt	gcactccagc	ctggcaaca	agagcaaaac	35880
tccgtctcaa	aaaaaaaaaa	aaaaaaaaaaag	aattttggag	ggaaaaaaaat	ccctctaaca	35940
gattcgaatt	aattctgtgt	ttcgagatgt	ttacaaaatg	aagcttggac	tctgagagga	36000
tgtgatctat	cctctccatt	gcatttaggt	tcaagtactt	cacatggcg	gttttttaa	36060
ctgtcgtgaa	gtttaaacca	aatagggact	agaatttgg	tgttttttta	acttacattt	36120
caagcttcct	tatgtctcag	gcacattagc	ataagttgtc	taaagtata	agaaaaatt	36180
gacagaaaaaa	tgcttggag	ccccagggt	tttcaattga	tgccacaga	aactaaccaa	36240
atggaagaca	tttgatgcgg	gttttatttt	ccttgcagt	aacagcggga	acatgaagcc	36300
gccactctt	gtgtttattt	tgtgtctgt	gtgggtaaa	gacagtca	gcgcacccac	36360
ttggaaggac	aaaactgcta	tcagtgaaaa	cctgaagagt	acgtttggtt	tcttacctgt	36420
gctgtgcct	gtttgcattgt	ttgttgtcct	gctggcg	atagttagtgc	gcagttgaga	36480
gataaccata	ttcgctgtt	tcacgggt	acgttctaa	ggcgttaaa	ccaggtcattc	36540
ctgacgcca	acatctgggt	aaaaatagaa	aatttcaatc	acgtctctgc	aggcgttcac	36600
cttccagat	gtttgtatca	tgttagataca	acttgcagg	tttttactg	catttttttg	36660
tatcatccag	atgggtgg	tcatctcagc	acagctctaa	tgaacagtg	aatactttc	36720
tagcatttga	aaaattttaa	ccatttagat	aatctgtgc	attgttctt	aactagtgaa	36780
agaatgggtt	ataattacgt	tgaatctgt	tgttctgtt	ccattaactt	gcaactttgc	36840
tttgtgtat	atacttggg	tacttaat	atagaagaac	aaattagct	aaatgcagct	36900
gatttgggtt	ctgtataat	cagagtcaag	aatgagctt	tcagtagg	acggtggct	36960
ttttaacac	ggaatgacaa	tgaattttaa	acttactaag	ggcttattaa	aggtgtataa	37020
gacacgtcca	ttgaggattt	aaggaagctc	gtattacatg	ggataactt	tagtctcg	37080
gcctccttat	tagttaact	aagctgaaag	aaagagaaat	tgctgactgt	gtttgagg	37140
cccaagctgg	cacttaat	aaattatgaa	gaaaatgaa	aattttctt	aatataaaca	37200
cacttgcgt	ttaaatgaaa	aaaaaaaat	ggataaaatg	aaacagg	tgagcaagt	37260
acaagaatga	ggttcagt	actctattt	tttaggcgt	cacaagt	gagtagaagg	37320
tatggtccgt	gtggcagct	tgtccatgt	gcagctgaca	gctaattt	tatgatctgc	37380
tttcagaata	tgagcctata	agagaacaat	taaggcttc	ttttggagac	atgaaagg	37440
ggtgaactt	gtgtttgt	atctgatcag	atctcaaa	aaaaatt	gccatgtctt	37500
taggtttt	tgaggtgg	gagatagat	cagatgaa	ggtgaagaag	gctttgact	37560
gtattaagca	aatgaaaatc	atgatggaaa	gaaaagagaa	gaaacacacc	aatctaata	37620

gcaccctgaa	gaaatgcaga	gaagaaaagc	aggtacagtc	attgaaaata	atgtctgttc	37680
ttacacagat	ctggaccaga	aatactgcac	ttgttagtgc	gattgatgaa	ttacttattt	37740
tccttagtaa	taaatttcat	gggttagctgc	tttatttga	ggaaaagttt	aaggaaagct	37800
tcaagattcc	ttgaagaaca	tatttcgtgt	aggataggct	tctgcaagac	tccaaacccgg	37860
aatctggggg	attcatctct	gtttaagtgc	tgcttctca	aaaatagatt	atttttggtc	37920
tcttctgagt	taggatattt	agtcaaaagt	atttgaagag	ttttttttt	tactagatca	37980
gtggctcaca	gagttttgt	tttttgtttt	ttgtttgtt	ctgttttga	gacagagtct	38040
cgcctgtca	cccaggctgg	agttgatccc	gctcattgca	acctccacct	cctgggttca	38100
ggtgattctc	ctgtctcagc	ctccctagta	gctgggatta	caggctccta	ccaccacgccc	38160
tggctaattt	ttgttattttt	agaagagacg	gggttccacc	atgctggca	ggctggccc	38220
gaactctgg	gctcaagtga	tccacctgcc	tcagccccc	aaagtgcgg	aattacagggc	38280
atggaccacc	gtgcctggcc	cagagatttt	tggctctca	ttcctatgac	taaaaaattt	38340
gttaccactc	actcctaaat	atatgcataat	tcatttactc	atgaattaga	tacatgaatt	38400
gctaccattt	atatctcaag	gcacaatatg	tatttaaggt	gagattcatc	attagcgagt	38460
gtggatataa	gtccacattt	caaataatct	tctagatattt	ttgaaaactt	tagccgactt	38520
gccagatctg	attagatcac	catagtttc	ccttgtca	tggccaataa	agagctcata	38580
atgatcaagt	gtcagctctg	ccatggctt	ttggccgct	tgagcttaaa	ttattcattt	38640
ttaaaatctg	ccaagttttt	tttttttca	aagaatctt	ttaagcctcc	tgtccattt	38700
gtgaagggtt	ctttagttaa	aactagataa	taaaatccat	cagtctac	gagttctt	38760
acatggcaac	tcattacaat	ttgggtgcatt	tgaacagagc	aagggaacta	tagttgattc	38820
ttctggaaatg	tagaggatcc	ccttttcccc	aaggtcatca	catacagg	ggcacacaca	38880
gtatctgaca	tatgcattctc	aagagagtac	catgtatatc	caataatgc	tcagccta	38940
cacttttca	aattcaaata	gctttattta	acagctatag	cttgaactac	atattttatc	39000
catggagaat	acatattata	tcaaaatgtc	tttggaaagat	gtaaaaaattt	gttcatatgc	39060
cacagtataa	agttcagtaa	atttctaaat	tatagacatt	gaatagctt	cagtttaatg	39120
acattaataa	ttaacatcac	actcaaaaca	atgactttt	taaaaaaggt	tatcttcaam	39180
cattmccctt	aaatcaaaga	ggaaattaaa	actgtacaa	aaataattt	gaaaatattt	39240
tcaattttaa	tgtttagagat	aaattactt	ttaaattktat	tttttattttt	tgaaaaatgt	39300
taagttgtta	aatacatata	acaaaattt	ccatcataac	catttttaag	tgttaacgttc	39360
agtagtgtta	aatacattca	tactgttgc	caaccaatct	ccagaattat	tttcatctt	39420
caaaaactga	aagtctatac	atattaaaca	atgcccatt	ccccccaccc	cagtcagatt	39480
tttaattttaa	aaatacaagt	ggaagttctt	atatttcta	tctatccctc	tatctataaa	39540
gttggggggcc	actgaattcc	agattgtgc	ttgcattttt	ttacttctga	gcatcatggc	39600
ctctgggagt	ccgttaagca	actggagccg	ggtagtgc	caggctgacc	ccaaagctgt	39660
gtgtcagcgt	caccggactg	gtttagtgc	cagcttacc	tactgccc	agtcagtcag	39720
ggttctggca	aggaaaggag	aatgcctgac	cagcagctgc	aaacccttct	ccctttggc	39780
agcaatcaaa	agattttgag	gaaatctaaa	atagctctc	atcaggaaaa	tgtggaagcc	39840
cctccagctg	ggatcttccc	ttgtgggctt	gtgagcctgg	ccatctgg	atagagacac	39900
tagatagcac	tcatacactc	ttcacaaaaac	acattatcac	atggatgtt	ttgaacatct	39960
ggttaaaacca	ctacttcat	tttatacgta	agaaaaactgg	ggtttgagat	gtttgttaat	40020
taacatgtta	ctccaaacact	gtaatgaatg	aactgagata	aagtctcag	atgtgtgcac	40080
gggggaccca	gtgattttct	gctttctca	cttcctgaa	cctcctgca	aggaggacag	40140
ggtatacagc	tttaacaaga	atattccact	ttgggtgggt	caagtaagca	aatgtggatt	40200
tcacttctgg	ccctgaagaa	tccaaagcac	tagtagaatt	tttggttatt	ctaaaaatc	40260
ttattgtaca	aaaattcatt	gaattatact	cttaagtttgc	aggcactaa	ttagaaagtt	40320
aatcgaaaaa	aaaaaaatctg	ttaaccctg	agtatccctc	cctaaaattt	cttaaagcct	40380
agaataaaagg	tcaagttaga	caaattatga	attgcaaat	atgggtttag	caaccctagt	40440
ctccccagtt	tgagccccac	ccattctcaa	gagtaactgc	cagtcgtgac	ccagcatct	40500
caactgtcccc	ttcctccacc	cctccttatt	aatatttagt	gagactatct	gaaacttatt	40560
aagttaggaaa	cccttagagaa	ggttagagtg	acttgacctc	caaattcagg	tttatttgc	40620
tgtgtttta	atgaaatggg	gtcttgcatt	gttgcgcagg	ctggcttgc	actcctggc	40680
tcaagggatc	ctcctgcctc	acttcccag	tagctggat	cacaggcact	agccaccatg	40740
cctggctcaa	tgccagggtt	atatacgct	tttgataaaac	tgtcaactat	aggaatagag	40800
ttataagcgt	aatctgcca	gttggtacaa	tgtctagcag	gaaacggaa	gcgtcgatag	40860
gatattcctt	aggaatgttt	actagacaga	ggtctacttc	ttccatggca	atgtttact	40920
tccaaaactt	gggactgtg	atttggtaac	tgtttttgt	cctgcttct	ggcagtgaat	40980
ggaaggaagc	ttagagata	ctagttatta	tactggacta	gttataataa	cagatgtctt	41040
gcctatgata	atggatacta	ggtataataa	tagatgcctt	gcttggtag	ctcatttaat	41100
gcaaagaccc	tgagaagtag	atactattat	tccttattt	tttatttgc	aatgaggaga	41160
ctaaggctt	tatgtattaa	gtaatttgc	caagggtaca	cagccactgt	agtttggaaat	41220
tggaaatatt	aggattttgg	cttatgagga	caatgagcag	aatatgtaaa	atttggactg	41280
attgagaaaa	tcctggaggt	attgttactt	gccttggaga	aacaactttt	ttttttttt	41340

tttgagacag	agtcttactc	ttgttgc	cca	ggctaaagga	caatggc	ac	atcttgg	ctc	41400						
actgc	aaacct	ccgc	cctc	gttca	aggcg	att	tc	ttc	aggtgg	ctg	41460				
ggattacagg	cacccacca	catg	acc	aggc	taat	ttt	gt	ttt	ctag	ca	gagacagg	gt	41520		
tttactatgt	tg	cc	agg	gt	tt	ct	ca	aa	ac	atc	cc	cc	ttca	41580	
gc	c	cc	aa	aa	tg	ct	gg	at	tg	gt	cc	aa	aa	accac	41640
tttaagatgt	tagat	ttc	cag	ca	ca	gt	gg	tc	at	tc	at	cc	cc	aactt	41700
ggagg	tc	aa	c	at	gg	ca	gg	at	gg	at	cc	cc	tt	tt	41760
gt	na	ct	c	ta	ct	ta	na	ac	at	cc	cc	gg	gg	cac	41820
tact	cc	ac	g	g	gg	gg	gg	gg	gg	gg	gg	gg	gg	gg	41880
tg	c	g	g	g	g	g	g	g	g	g	g	g	g	g	41940
tca	aaaa	aaaa	aaaa	aaa	ag	at	cc	aa	at	tt	tc	ta	aa	gt	42000
gac	ac	ac	ac	ac	ca	c	ct	c	tt	at	tt	tt	gg	ca	42060
ttt	c	t	t	ac	gt	at	ac	g	tt	tt	tt	tt	tt	tt	42120
ca	ack	g	aca	aa	tc	tc	at	cc	tt	tt	tt	tt	tt	tt	42180
ctt	gg	gg	c	tt	aa	ta	ct	cc	tt	tt	tt	tt	tt	tt	42240
g	cc	ca	gat	cc	ac	ta	ct	cc	tt	tt	tt	tt	tt	tt	42300
gg	tt	tc	gaa	gg	gg	tt	tc	gg	gg	gg	gg	gg	gg	gg	42360
gg	tc	gt	tc	ac	at	tt	cc	cc	tt	tt	tt	tt	tt	tt	42420
gg	ac	gg	tt	cc	ac	tt	cc	cc	cc	cc	cc	cc	cc	cc	42480
g	ca	ac	cc	ca	ag	gg	gg	gg	gg	gg	gg	gg	gg	gg	42540
tcc	catt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	42600
aatt	tg	cag	ag	at	gc	at	cc	cc	tt	tt	tt	tt	tt	tt	42660
actt	tg	ac	at	tt	tc	tt	tc	tt	tt	tt	tt	tt	tt	tt	42720
agc	ata	aa	at	aa	at	gt	ac	cc	tt	tt	tt	tt	tt	tt	42780
tg	cacc	at	gt	gt	gt	gt	gt	gt	tt	tt	tt	tt	tt	tt	42840
cc	ca	gat	cg	g	at	gg	at	cc	tt	tt	tt	tt	tt	tt	42900
at	ag	ca	aa	ca	tc	ta	at	cc	tt	tt	tt	tt	tt	tt	42960
ag	t	tt	ca	at	tt	ta	at	cc	tt	tt	tt	tt	tt	tt	43020
at	ct	g	ac	g	tc	gg	ca	cc	tt	tt	tt	tt	tt	tt	43080
att	ca	aa	gg	at	ca	aa	tt	tt	tt	tt	tt	tt	tt	tt	43140
gt	tt	ct	act	tt	ta	ac	tt	tt	tt	tt	tt	tt	tt	tt	43200
ga	ga	aa	gg	aa	gg	tt	cc	ct	tt	tt	tt	tt	tt	tt	43260
ct	gg	aa	ata	aa	at	tc	at	cc	tt	tt	tt	tt	tt	tt	43320
a	taa	agg	tt	aa	aa	aa	aa	aa	tt	tt	tt	tt	tt	tt	43380
tt	act	ttt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	43440
ttt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	43500
ta	aa	gt	at	ct	ta	tt	tt	tt	tt	tt	tt	tt	tt	tt	43560
gc	acc	at	tca	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	43620
gc	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	43680
gt	cat	at	at	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	43740
tg	catt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	43800
c	ttt	at	at	at	at	at	at	at	at	at	at	at	at	at	43860
ctt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	43920
ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	43980
cg	gt	cc	aa	at	at	tt	cc	cc	tt	tt	tt	tt	tt	tt	44040
gt	gg	aa	tt	tc	cc	at	gg	cc	tt	tt	tt	tt	tt	tt	44100
at	cc	cata	ct	at	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	44160
gc	tc	cc	act	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	44220
ag	aa	at	gt	ca	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	44280
gg	c	at	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	44340
aa	ag	gt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	tt	44400
ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	44460
ccat	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	44520
cct	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	44580
tag	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	44640
ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	44700
ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	44760
at	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	44820
act	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	44880
ttc	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	44940
ttc	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	45000
ttc	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	ttt	45060

tcacttggaa ccaggaggcg gaggttgcg tgagccgaga tgggccatt gcactccagc 45120
ctgagtgaca gagcaagact ccatctcaa taagaaaagaa agaaaagaaaag agagagagag 45180
agagaagaa agagaaagaa agaaagaaaag aaagaaaagaa agaaagaaaag aaagaaaagaa 45240
agaaaagaaaag aaagraagra agaaagaaaag aaagaaaagaa agaaagaaaag agagaaaagaa 45300
agaaaagaaaag agaaaagaaaa gaaaaagaga aaaaaagagt tgagaaaagaa aataatttt 45360
tattccattt ctgtccctta ctctactcca cagattgaac gtttttcag gaagatata 45420
caatttctat ttcccttcca tgaagataat gaaaagatc tccccatcag taaaagctc 45480
attgaggaag atgcacaatt gacccaaattt gaggatgtgt ymagccagtt gactgtggat 45540
gtgaattctc tctttaacag gagtttaac gtcttcagac agatgcagca agagtttgc 45600
cagactttc aatcacattt catatcatg acagacctaa ctgagccta ctttttcca 45660
gtttctcta aagagccat gacaaaagca gatcttgagc aatgttggaa cattccaaac 45720
ttcttccagc tggggtaa tttcagtg tctattttt aaagtgtag taaaacaattt 45780
actaagatgc tgaaggcaat agaagattt caaaacaag acaaaggca gtattaaaag 45840
attacttta ctttagaggtt tacactaaag tcaagttttt ttagcttca gaaatggtag 45900
acatttctga gtcacattt atagcattt ttgaagagac aatttatggaa aatgttca 45960
gaggcctta aaagaagtt tgaagtctgc taaacactat cccttccca tcatcgttga 46020
gaactgaact cttcttagag caaattttca aagcagaaaag aaaaaatgct aataggttga 46080
gaacttgaaa aaaaaaaacc agttccctca ttttattttt ctttattttt ttttattttt 46140
gacggagttt cactctgca cccagcctgg agtacagttt tttttttttt tttttttttt 46200
acctctgcct cccaggttca agcaatttctc ctgcctcagc ctcccaagta gctgggacta 46260
cagtttgca ccaccacgccc cagctaattt tttttagttt ttagtagaga cgggggtgtc 46320
agtatcttgg ccaagcttgg ctcaaaactcc cggacttcagg tgatccaccc gccttggcct 46380
cccaaagtgc tggatttgc ggcgtgagcc accatgcattt gccatttccc tcatttattt 46440
aagctcatgt agatgcttag ctctatttctg ctaaagcattc agagagctt tttttttttt 46500
atctggaaatc ctcaactccc agtttgagaa gcccacttcc acatataacc agagcaattt 46560
agtgccttcc tctgaatcac tacaatcattt cttttttttt tttttttttt 46620
acaaaaaaatg ctctaaacc ccaaactaca gaaatattttag ataagaatttgc ctttctacca 46680
acactaatca tgcctcatgg catccatgtt ggagacacaaa tgctgttta tttttttttt 46740
cgccagatat cttctgtggg cttctatggaa gtaagttttaga taccgcattt gagaatgaga 46800
attgccccca gggtaagttttagatctgc attttttttt tttttttttt 46860
ccaggttggaa ggctgctccc ctctgatggaa aaaaataaaaaa tgggctcctt ctatcttattt 46920
ttcttttttct tttttttttt tttttttttt tttttttttt tttttttttt 46980
tgtatttttttgc tttttttttt tttttttttt tttttttttt 47040
gcctcagctt cccgagttttagt ggggatttaca ggtggccgccc accacgcctt gctaattttt 47100
gtattttttag tagagacagg gtttccacca tttttttttt tttttttttt 47160
ctcaagtgtt ctgtcacct tggcttccca aagtgttggaa attacaagca tgagccacca 47220
caccctggca gccaccacac ccagccagcc accacttcctt accctatctt actattttt 47280
aattatatta gctgttagctg gcaacatctt aatcatttttgc tttttttttt 47340
cataactggc ctctacatag gagaggttt cttttttttt tttttttttt 47400
cattacatcc ttccatgttccat atcgttccat gaacagagaaa cagccatcat tactggattt 47460
gttgggttctt attttagt ccagttggact tttttttttt tttttttttt 47520
gtccattctt agtttgc tttttttttt tttttttttt 47580
aatctatcca ggctgggtgg tatttttttgc tttttttttt 47640
ctgtcttggaa ataaacttgc gaatatgttca attttttttt 47700
ttgtgttagca gcttacaca agcatttttttgc tttttttttt 47760
tgatttttttttgc tttttttttt 47820
cagctacgaa cataggtttc cactgttgc caccatttgc ttcttccatca cacagctggg 47880
ggccagccctt actctcagttt gcttccatgc caccctcccc agccctctt cggccacttcc 47940
atctcagttt gtttttttttgc tttttttttt 48000
caaaatagca accaaaaaaag tttttttttt 48060
tccccttagcc agacagtaca cagaagtttgc cggcgggactt cccagatgag 48120
caaatgttggaa ctgtttatca agaataatgttca ggcaggcgtt ctacacact tttttttttt 48180
ttccatcttactt ttttttttttgc tttttttttt 48240
tgcctaatga ctgtcacctt ttttttttttgc tttttttttt 48300
acaatatccc cacccttataatc cccagaacactt gtttttttttgc tttttttttt 48360
taaggatgttca gatggaaatc aatttttttgc tttttttttt 48420
tttttttttttgc tttttttttt 48480
ctgcaacccctt cacctccggg gtttttttttgc tttttttttt 48540
gattacaggc actcaccacc atacctggctt aatttttttgc tttttttttt 48600
tcgcccattttt gtttttttttgc tttttttttt 48660
ctcccaaaatgttca gtttttttttgc tttttttttt 48720
atagagagag ttttttttttgc tttttttttt 48780

tggaagaagg	aggcagaaaa	gaattaatag	tagcagccac	aagagaagga	cttggctcg	48840
cttgcgcac	cttgaagaca	gaggaagggg	ccagggccg	agtaatgtag	gtggcctcg	48900
ggaactggaa	atggtataga	aatgaattt	cctctagac	ctccgcaaaa	aactagccct	48960
actgacatct	ttttttttt	ttttttttt	gagacagagt	ctcgctctgt		49020
cttcaggctg	gagtgcagt	gtgcgatct	ggctcagtac	aacctccg	tcctaggttc	49080
aagcgattct	tctgcctcg	ccacctgagt	agctggact	acaggcacgt	gccaccacgc	49140
ccagctaatt	tttgcat	ttttttttt	agacagatga	catcttgatt	ttagcctagg	49200
gagacccact	tcagacttct	gacctaaaag	accaacaat	aatgaattt	tgctgtttca	49260
agccactgaa	tctgtgttag	ctgtacgaga	gctaataata	atagaactg	accaacattt	49320
actgagcaag	ttccgtgtgg	caacccat	ggatggcct	tattggtcat	gattgtttaa	49380
agggccaaaa	ttagaaaaat	agctaacact	gaattatgaa	caccaggaa	aggagagcgg	49440
aaataaaaaa	aatcagaaat	atcttgataa	ttaatgctat	ttttgtttag	tataggttca	49500
ttttgttctc	atatttctt	cctaccttgg	tcttctgga	cctcagtcc	tgaatctgtt	49560
gaaagcgaat	aggtccagga	aagtagctct	tggattatc	ttcatttgc	ttatgaatcc	49620
cttggaggaa	catatgagat	tgagttctac	tgtagctga	ccctgtcg	ggccgggaga	49680
cctggttcta	atgctgcctt	agagagtgtt	agttaacatt	aatttcgc	tggagaaac	49740
agacaggcag	gtggagagt	agatgattt	gctcagtgc	tgcactgaa	gtagctccct	49800
ggaagggttc	tgaggttctg	tcaaggctag	actaagcga	gtgatggatt	gtgtgtgtgc	49860
tgcaggatgg	ggaatttagt	tcatatggc	ctagaattt	tcatccttgg	tgtacatacc	49920
agttataat	ctagatgcta	gagataaaat	gatgattat	acacagcc	tgacttccag	49980
gagctcagtc	cagagaaagg	aaaacagatt	agtgaacaat	tacatcacca	tattgtgggt	50040
aaaatggcag	aagaaggtat	gaaagaatga	caagattaaa	atggcaagac	caagtccctt	50100
ccctcaagag	gcttacagtc	taatggaaa	gataagaaag	caaacactac	ataaaagcagg	50160
aattaattct	acactggaaa	ttctcacagg	ggctataca	gggcaaaagaa	gagggtccag	50220
gaaagcagct	gggagaaact	gactttctgg	tcaccaaagg	ggatgggtgc	cttacatgcc	50280
attctatcaa	acagtgcctc	actgttttta	aactatggac	tttgcattt	atctcaaaat	50340
aaaacgtttc	atttttaat	gctgaggatt	taatatgaca	gaaaatcatc	aggttgtaaa	50400
tttagtaatac	atgtttccta	atgtcaaaca	ctctatttgg	aaccgcaat	tttctgttgg	50460
atagacttct	cttttacaca	tttttatatg	gattgttaat	tctcctaggg	aaaaaaactt	50520
ctcaaaactt	gattggctt	agatatttc	ctaaatctt	gacccctgt	tcataacagt	50580
atatgcac	ccacacacac	atactcgac	acatatgtgt	gtatataat	gtgtgtgtgt	50640
gtgtgtgtgt	gtatatacat	atatatgaga	aatgaaaaaa	aagaatagta	ataaaataac	50700
cacctatcac	ccacttaag	aaacagacat	ttctaatatc	tttgcattt	cttcccaatt	50760
atagctttaa	aaattaattt	ttaaagagg	ttttaaaata	cagaaaagtc	caagagaaaa	50820
atgggttcac	aatcacctat	ttacttaatc	ctattgacat	cagaaataact	aatgatataa	50880
gacaaatgat	ttttaaagta	atcaaataata	taaaagaaca	aaataaatga	aagctccct	50940
ctccctacctt	atcaactccc	tcttctaaa	gatagttt	aataatttctt	catgactcct	51000
cctagaaaaat	aaaattacat	gcattaaat	atgtgtgtat	atactactaa	taaatttcta	51060
gtaatgagat	tcttggattc	aagagtgtgc	aatttttaat	agctgttgc	ttgtcccagg	51120
aaattattgc	accaacgtgc	atttctgtgt	ctaaatata	aaaaagggc	cagggcggt	51180
ggctcatg	tgtatccc	gcactttgg	aggccgaggc	gggtggatca	tttgaggtca	51240
ggagttcaag	aaaccggc	gacaacatg	gcgcacccc	atctctacta	aaagtacaaa	51300
gattagctgg	gcttgggtgc	tctcacctgt	aatcccagct	acttgggagc	ctgaggcagg	51360
agaatcactt	gaaccggg	gcaaggagg	gcagtgc	aagatcccgc	cactgcactt	51420
tagcctggc	aacaagcaag	actctgtctc	aaaaataat	aaattaaata	catacataca	51480
tataggaaaa	agatttgaa	agcaactgg	agaaaaagct	gcggcattt	ctccacttct	51540
tcaaagtgc	aactcttat	acactaacgt	gtaaatgtt	tttgcattt	agctcctgc	51600
cacggaggcc	tgatttcaaa	gatgttac	gggcaggaca	gaggactgt	tggggactt	51660
gaccagaatt	tgtcaagat	tttcaattt	catgaaaaat	gccaaaaat	tcaggctc	51720
ctatctgaag	gtaaataatt	gttattttt	tttttattt	actttaat	ctcaggtaca	51780
ttttgttata	aagttcgg	gccacaaaag	aaatagcact	cgaatataaa	attttcttt	51840
taattctca	caagggaaat	tacttctata	gaagggtgc	cccttacaga	tggagcaatg	51900
gtgagcgtgc	acttggcaag	ggaggggg	gggttctt	ccctgacaat	gcacgtggcc	51960
cctgctgctg	tgtgggtccc	ctattggct	gggttagacc	gcacaggct	gactaattcc	52020
cattggctaa	tttaaagaga	gtgacgagg	gagtggct	gagggaaaaa	tggttatgac	52080
agagcatgt	atcggatga	atcaggccg	agcgtgtat	cggaatgaat	cagggcgag	52140
catgtatcg	gaatgaatca	gggtggagc	tgtatcgaa	aaaggttgc	ttacgaggaa	52200
attaagttt	aaagtagaag	gcaaaagaatt	gaacatactg	acatactgt	tctttggaaa	52260
gaaattttaga	actcacatct	acaattttt	taggtttct	ttgttattt	ggacagagga	52320
caaaatctca	ttctcacaag	catagtggat	tcatttgctt	tcctccaagc	actttttgc	52380
aggctcattt	ccatctgggg	gcgttcaatg	tagtttata	aactgggtt	ttgtttgtt	52440
gttttatgag	acagagtctt	gctctgtgc	ccaggctgg	gtggcacaat	ctcggctcac	52500

tgcaacacctcc acctctcgaaa ttcaagcaat tctcctgcct cagcctgccaa agtagctggg	52560
attacaggca tgtgcacca cggccggctaa atttttttg tatttttagt aggacgagg	52620
gtttcaccat attggccagg ctggctcgaa actcctgacc ttgtgatccg cccacctcg	52680
cctcccaaaag tgctgggatt acaggcatga accaccgtgc ctggcctggg ttataaactt	52740
ttattattcc aaagtatgtc attcttcac ttctttaat tccctaattt gtcttgcgtat	52800
ttttttatg attaatgacc aaacactatt gtgtcaaaa gaaaaactt gagcaaattt	52860
gogcaactcc ttccttctta ccccaagcaaa aaagaacccc tgcccccaac catgaaagaa	52920
acctttcatt ctgtaatca gtgttagac aagtggaaa ttttttggaa agtggcattt	52980
gctcttccc attgggggt taatgaacta attagcattt aaataggaa agtggcttct	53040
cctcccaagg cccaggaaatc cttttccctc ccttcttagt tcctcccca ggaaggaaat	53100
cattctccct ttccctccatc cttcccttca ttcccttcc cttctccaga ctaaagtac	53160
tcctccaaacc ccaccaggc caaattacaa ctttcttac ataaaacaag agctttgtat	53220
tcctatgctt ctgcattttt tctcaactaaa gccctaaggg aaggaaattt tcaaagtgt	53280
actaatggct tacagtagga aatttggaaa tacagaaggg acagaaatca acatgtcagt	53340
aaattctaca acactagcta gagatttggg gcaagtcat tattgtgtct aggcctcagt	53400
tgagtaattt gtaaataaag gacccaagat aatcttggg ttctaaacaaa attttctgt	53460
aaaacagtgg tccccagct tctggcacca gggactagat tcctggaga caattttcc	53520
aaagatggg gggcaggggg cacgtttggg gatgatcatc aggcattatt ctccctaaagg	53580
gogctcaacc tagaccctt gcatgcacag ttccacaatag ggttgcgtcc cccgtgagaa	53640
tgaatgcct ccgctgatct gacagcaggc ggggctcagg cagtcattct tgctcacctg	53700
ccgctcacct cctgctgtac agctccgtc ctaagaggct acaggctgat atgggtccgt	53760
ggcccagggg ttggggaccc ctgctataaa ggaagttcag aaaaatcaga ttataattct	53820
gatttttata aatcagaatt tataaaattt agattataat ttactacca gtaatagctc	53880
ttttgcctt aacttccac agtgaagacc actggatata ttatatacaa cgcaaagaac	53940
aaaaagcatg gtcagtggaa actcctgccc ctcccttggc tttctctctt caatctaaca	54000
gtgagcaagt tgcaacaaat cgccgcgttc agagaaaagg gaggatggaa ttgttacaac	54060
cgttctgtc gcccaggctg gagtgcatgt ggcgcattt cgctcaactg aacctctacc	54120
tcctgagttc aagcatttct gctgcctcag cctcttgcgt agctgggatt acaggcacgc	54180
gccaccatac ctggctgatt tttgtatttt tagtagat ggggttccac cataattggcc	54240
aggctggctc cgaactcctg acctcgkattt cttccaccc cagcctccca aagcgctggg	54300
attacaggtg tgagccatcg cgcctggcca acaaattgtt acaatgtaa acaacataat	54360
atccctaaaca tattggctt taaagatataa tttagatacac cacaataacta ataaaggta	54420
ccttgggtt ttaagattaa agatgatttt taaaataact tcttctgtt tttccaaac	54480
tcttaaccat aaacataaga tattccttga cttaggatag gattatgtca caaccatca	54540
taagtttggaa aaatcataag ttgaaccatt gtaaattggg gaccatatgt acatgtatgc	54600
atatatgata taaaaatttta ttagacgtt taaaaatttgc acttttttac atattacttt	54660
tatttaatca ccttgcctaa ggagcctgtt aattacatataat taatatttctt cattatgaaa	54720
taagtcttc cattgtgcaa attaatgtt tgcagagggtt ctaaacatct atatgttttgc	54780
caactcgaaa ggagtaagtt tccctttctt aatttttttgc tcaattaaat aaaaaatgaa	54840
gtttaataga gtctttaaaa ttagatcatt attcgaggtt gtttagtaaac ctgttttagag	54900
tcgacaacac tcccttctc tctttttttt tttttttttt tttgtgcctc agtctcgctc	54960
tgtcgccgag gctggagggtc aatggcacga tctcggctca ctgcacccctc cacttcccg	55020
gttcaagtgtt ttctctgttgc tcagcctcctc gagtagctgg gattacaggg aaccggccacc	55080
atgcccagct actttttgtt atttttagtta gagatggggg ttcaccatgt tggtaggt	55140
ggtggcgaac tcctgacctc aagtgttttgc cctggctctg cttcccaaaag tgctgggatt	55200
acaggcgtga gccaccatgc ccagccccctt tctctttttt aatatcacc agcctggggtt	55260
cttggcttctt tttgtttttgtt tttttttttt ttttgcgttgc gagtcttgc	55320
ccgtngccca ggctggagggtt cagtgccaca atctggctc agtgcacccctc ccgccttctg	55380
ggttcatgccc attctcttc ctcagcctcc ttagatgttgc ggactacagg cgcggccac	55440
catgccccggc taaaatttttgc tatttttagt agagacgggg ttccaccgtt ttagccagga	55500
tgtctcgat tcctgcattt tttttttttt tttttttttt ttttgcgttgc gagtcttgc	55560
caggcttgcgaa ccaccatccc tggcctccatc cctgggttctt tattgtatctt gatgttca	55620
gttagttggg ctatgtgagga agtcagggtt cacggccac agaacaagaa caaggattgt	55680
tctttcttc tctcttcac ttcttcttgc tttttttttt ttttgcgttgc gagtcttgc	55740
ttttctccccc ttcttttgc aaggcaggatc cattatacaat atggacttgc ttacttctcc	55800
acatccctct tttttttttt tttttttttt ttttgcgttgc gagtcttgc tttttttttt ttttgcgttgc	55860
tagacaattt tgacatcttgc aatgttttttgc tttttttttt ttttgcgttgc gagtcttgc	55920
ccaggttagct ctgattacaa actggacccctt ttcgggggtt taccttagagc agttggaggt	55980
gctcttctc ctggccagggtt gcatgttgc tttttttttt ttttgcgttgc gagtcttgc	56040
gaggcggggcg gatcacctgc ggtcaggagt ttggacccag cctggccaaatc atggcgaaac	56100
cccgcttctac taaaatataca aaaatttagcc agatgttgc gtatgttgc gtaatccac	56160
ctactcaggaa ggctggggca agagaatttgc ttggacccctt gaggcaggagg ttggcgttgc	56220

ctgagatcaa	gcctccagcc	tgggcctcag	agcgagactc	tgtcttggaa	aaataataat	56280
aataataaaac	agataaaataa	aattaaaaaa	aataaaaaag	gagtgcctc	tctcctgaaac	56340
tgcgtactcg	aggactctct	cagcctgtt	tatcatttg	aagagggaaat	aatatatctg	56400
cttcgtacac	atcttagaa	gtttaaataa	aatgtctgaa	atataatgaa	ttctcatttat	56460
tcaaataattt	gtttttaag	tcacagttgc	aaggttat	acagaagcat	aggttttat	56520
aacagaaaaa	tagacactta	atatactgac	ctcttacaaa	aatagtctg	ctcaagcatc	56580
ccatctatgt	atcattamca	tctatttctt	tctacccagc	taaaatagtt	tattaataat	56640
ccttgaatgt	cacaagtnga	atacagaata	aatcagataa	tacattaaaa	tgcacctgat	56700
aatcaatatg	caccagataa	tggacacagt	atacatcaga	taatacagta	caaattcaat	56760
gaaagtttag	tgttgc当地	gtaaaatgta	aagaatgtcc	taatgtgctc	ccatgctgct	56820
taaaactgtt	attataaatt	gtttttatt	ataaataat	aaagaatgat	gtaataggcc	56880
agccatgggt	gctcatccct	gtaattccag	gtcttggga	ggctgaggca	ggtgaatcac	56940
ttgaggtag	gagtttgaga	ccagcctg	caacatgg	aaacccctgc	tctactaaaa	57000
atataaaaaat	tagccaggt	tggtggta	cacctgt	ctcagact	ccggaggctg	57060
aggcaggaga	atcgctt	gaaacc	ggaggtgca	gtgggtcaag	atcaagcaac	57120
tgcactccag	cctaggt	gacagc	tttgtct	gaaaaaaaaa	aaattctcag	57180
tcaccttagat	tgagaaatag	aacattaca	aaacagataa	agccccactg	tgttcccattc	57240
cacatcacat	tcactt	tcc	gaaagtgc	tttgaattt	agtattaatt	57300
atttccttgc	atttcttct	actcatat	tgtgcctata	tacatataat	atatacaa	57360
gccgatata	catatag	caat	ttcgat	tttgcattt	gttgc当地	57420
ttaaacttaa	aaacatg	cata	gggtgg	ctcatgc	taatcc	57480
atttgggag	gccaagg	cg	gaggtc	gttgc	agcc	57540
acatgggt	acccat	ctc	gaggtc	gttgc	at	57600
cgcgtgc	taatcc	cagc	tactc	gctgaggc	gagaattt	57660
aggcagaggt	tgc	actg	cgagat	ccatt	ccagc	57720
agactccatc	tcaaaaaa	aaaaaa	ctt	cata	acatgaa	57780
tggctgggt	cggtg	ctca	tgcc	tgc	ggc	57840
tcacttaagg	ccagg	gtt	gagacc	tgg	agg	57900
aaaactacaa	aaattag	cca	gcatgg	cat	ccc	57960
gctgaggcac	aagtat	ca	tgt	ccc	act	58020
tcactgcact	cctg	c	tttgg	cc	ccat	58080
aacaaagaaa	agaaaa	aaa	acat	tttgc	aaac	58140
aacttattaa	tgaagg	acc	agcagg	tag	tttgc	58200
ctggagtgc	tac	atg	tttgc	tca	aaa	58260
agttatatt	cgaaagg	ca	actaa	tttgc	tttgc	58320
aaaataattt	acat	ctc	ta	tttgc	tttgc	58380
taatttcatg	gag	tct	gg	cc	tttgc	58440
ccctagac	tga	atg	tttgg	cc	tttgc	58500
agaggac	caag	cct	gg	cc	tttgc	58560
agccggc	gg	tttgc	gg	cc	tttgc	58620
ccacttg	cc	gg	gg	cc	tttgc	58680
ctgggt	gg	gg	gg	cc	tttgc	58740
aaaggaaatg	cag	ccat	tttgc	tattt	tttgc	58800
ttaacaat	aaat	attt	tttgc	tattt	tttgc	58860
agtttgc	gg	tttgc	tttgc	tattt	tttgc	58920
atgttgg	atgt	agg	cat	atc	atc	58980
tcaagg	tgt	atc	aaat	tttgc	tttgc	59040
tcaatc	ntg	attt	tttgc	tttgc	tttgc	59100
ttactg	atata	aaat	tttgc	tttgc	tttgc	59160
ctatac	tng	tttgc	tttgc	tttgc	tttgc	59220
ccatac	ttact	gg	tttgc	tttgc	tttgc	59280
aagg	tttgc	tttgc	tttgc	tttgc	tttgc	59340
attttct	aatat	agg	tttgc	tttgc	tttgc	59400
ccagttct	ttac	aaaa	tttgc	tttgc	tttgc	59460
atgt	tag	atc	aaat	tttgc	tttgc	59520
aaaagg	gg	gg	tttgc	tttgc	tttgc	59580
tttc	at	gg	tttgc	tttgc	tttgc	59640
ctgt	tc	ac	tttgc	tttgc	tttgc	59700
atgg	cc	at	tttgc	tttgc	tttgc	59760
agat	gg	gg	tttgc	tttgc	tttgc	59820
tcat	tt	aa	tttgc	tttgc	tttgc	59880
gcata	tttgc	tttgc	tttgc	tttgc	tttgc	59940

gtaggaggta	ttcatatttc	cattgtgatt	gccttcaggc	tgacttgatt	taacgtagtt	60000
catggcttt	agaaaacaag	aaagtccata	aagaaaatca	attnaaaaca	caaaaactt	60060
tctaatctag	aatggctat	ttctgcttag	agttataggg	ctataactga	tagaggtac	60120
cttgaagaaa	tatggccaat	gtaggttta	ggagagaaga	cttacaata	aagcaatttg	60180
agttcaaaat	ttgactctga	aacttaccag	ctgagtaagc	ttggaaagt	acctcaacca	60240
ttctaggcct	cagtgttcca	cctgtaaaat	ggtacaata	atagctatct	taacgtgtac	60300
acctataaaag	tgatttagtat	agatttctta	tacaaaacaa	gagctctgt	aattatagct	60360
cttatttagt	gctgacacaa	taaagccact	gagttatctt	gagaattaaa	catttatatg	60420
ttactcgtca	cataaaaata	cattgccagc	tggcgcagt	ggcttatgcc	tgtatccca	60480
gcactttggg	aggctgaggt	gggtggatca	cttggaggtca	ggagtttag	accagcctgg	60540
ctaatgtggc	gaaaccccg	ctctaccaaa	aacataaaaa	attagccaag	tgtatggca	60600
cacacttgt	atcccagcta	ctcaggaggc	tgaggcagga	gaatcactt	aaccggaag	60660
gcagaggtt	cagttagctg	agatcgtgcc	actgcactcc	agcctggcg	acagaaggag	60720
actctgtctc	aaaaaaaaca	aaaataaaara	catattgcca	tcttaaattc	cacctatacc	60780
atgactccca	gattcagtca	ataactttt	gcataacatg	caagtactt	ttcttcctaa	60840
gacatcccc	ctccaacaca	cacacattac	cttaatctac	aaatgcgcc	ggctagtgat	60900
tcctgtatgg	gctgggggg	agggttccca	aaaagactt	gataaaaaaa	ttactggca	60960
gagcaattga	agatgcaata	ttctgtgt	agttatgtt	gttatgttgg	tgcctatcc	61020
agatccctgg	ggatccctt	taccagctcc	cactgggt	ggtgctgt	ctaactgctt	61080
atctctgaaa	cttctccca	aagattgcc	ttggagact	tatgcccag	agttccctgc	61140
agatcaggc	tgaggctaac	agtcatctg	agccatatcc	ttgcttagct	tcttcactt	61200
ctctagttt	cttctctat	ccccttaaaa	gttcacact	agagcatct	ttataaacc	61260
cttctgtca	aatctcaggc	actgcttct	ggaattt	cttatggcat	tctataatcc	61320
agcatttccc	tctttttca	aactacaag	ctgtggatca	tgcctgat	gagaataaag	61380
tttagaaagt	cacagcaagc	tcattaaaaa	acaaaattaa	aaaccataca	aaaaatagaa	61440
taggacaaag	tagaaatat	tagcatgcat	tgcatttcat	aaatgcata	cacatcatgg	61500
aatttcattt	ccattttgt	tgttatatg	tgtttaaaca	tatatacaca	tatgttagaca	61560
tacgtgtgt	ttttgaatca	tgtatgtcaag	tgttattcatt	actgcagacc	acagtcaaag	61620
ggtttgaaa	gccactgttc	caatccctgc	cagctctg	attctataac	tctattagat	61680
taacacttgc	gaaggtaaaa	taattcaata	tatttgcata	tcctcgata	tatagactt	61740
tagtttaacg	aggaaaaagt	cttgcattt	agaataaaac	ttgaagaaaa	attttagcag	61800
tgctttcaac	ctttagaaat	ctacagtc	tatttagtt	tttttacat	tgtcagtt	61860
ttcttattctg	tgctttgatt	tacttccatt	ctagtgctc	ttgagtaaca	taacagattt	61920
atctaaaatt	ctttatgct	ataacaaagg	cacttctata	taaaaaccc	cacataaaat	61980
aaaattatgg	tttcaatta	tacattttt	taacaattat	taccactaa	gagcatttac	62040
tgggtgtca	gcaatgttct	aaagactttt	ccatatatca	gatcattaa	taccctcaat	62100
gaccctataa	gggaagtaga	attctttccc	cagtttca	aatgaggcac	agaggaggtt	62160
aagcaacttg	tctgagctca	cacagctag	aaatggtaga	actagaattc	aaactcaagc	62220
agtatttctc	tagaatcagt	gaacgttaacc	actttgctaa	actgcctgt	aagtacttt	62280
tctcaaaaca	gctccattt	caccatgtaa	agaaaagtac	aaaccat	aatagcaagt	62340
gctgaagaga	gccttatga	aagaaatata	caaattccag	caagtggaaa	cggttgggt	62400
ccctgggtgt	ataatagtt	catgggttt	gacttacaa	ttattnaaac	caaacataaa	62460
tactttatgc	agttttatg	tatgttatac	tcacagaaag	agaaggaaaa	atttttaaa	62520
tcattctctt	agggttacat	caagttgcgt	atcagttc	ttccattt	atgattcaaa	62580
tcaaagtctg	tgcatttgag	attcattaa	gagagtaaca	tacatgtt	tcattaagag	62640
taacataaaat	tttgcatttga	ttcttgccaa	aatcacact	acaaccataa	attgtttaatt	62700
tctaggaaaa	ctcagttacaa	aacttggtgc	aatgttataa	agtttggc	acagacagta	62760
atactcagca	aacatccac	ctccctctc	atatttcca	gctcccttgc	tggtaaaacg	62820
ttgccatgt	gcaagttctg	gccagtgt	cgtgagcaaa	actgaaaagg	gttctttgt	62880
gattgagaca	gtgaagagcc	tatgtgtgt	catctattct	cttttctgc	tgagggcaca	62940
aagaaaagtcc	tgaaatcatg	tgctcagat	atgagataat	gtgccttgc	ctaccaggct	63000
tctcagttgt	tacttgggt	gagccctt	aatggacaca	taacatgaac	aagaaataaa	63060
tctttgttgc	atgaagccct	aggaatgcca	ggactaatct	gttacctc	cacaaaccca	63120
ggcctatcc	gactaagg	gtattaaatt	actattgt	gtgtatttgg	attttagt	63180
cttctactgt	ataatcc	ttctgttagt	agtttcaagg	attcatgaag	gaaatattt	63240
caaacaagat	gaaacaatga	tgacagactt	aagcattct	ccttcctct	atttcacact	63300
caagatccct	tttgaagaaa	gtgctgag	ttcttaactt	attggctac	tagggcaaa	63360
agctctacag	catttaagg	aacattttaa	aacctggaa	gcagagtgc	tggtaggaa	63420
tgccttgc	acaggaatag	ttaattctca	aaaggaaaa	acaaaactt	tttcaaaata	63480
cctggaaaac	atgtttaacc	tcattaataa	agacatgaa	acaacaaga	tggcattttc	63540
tgcctatcc	atttgc	aaataaaaaa	cccaggaaat	cctgatagga	atgtgatgaa	63600
atgggaaattc	tcatatata	tgttattgg	ggaacataat	tggtttgca	tttttggaaag	63660

ctatggatt atgcataatga agagccataa aatttcctt tgatataata attccactc	63720
cggaaatcaat cctaaaggrat aaatctaaat ttgtatgaama ktctccctcc aagatctaga	63780
tttgcagcat tatttaaata ttaaaagttg gccgggcgca gtggctcatg cctgtaatcc	63840
cagcactttg ggaggctgag gcgggcggat cacgaggtca ggagatttag accatcctgg	63900
ataaacacgga gaaactgcgt ctctactaaa ataaaaaaaaa ttagccggc atggtggcgg	63960
gcgcctgtag tcccagctac tcgggaggt gaggcaggag aatggcgtga acccgggagg	64020
cagarcttgc agtgagcaga gatcgccca ctgcactcca gcctggcga cagagcaaga	64080
ctctgtttaa aaaaaaaaaa aaaaaaaaaa atatatatat atatatatat atatatatat	64140
atatatatat atgttaaaca tactcttaat gtgtaaaaac aagagaatga ttaagtakat	64200
tatgactaaa tacactcaat acatttatg aaacgttaaa aatattcaa aaatttaaat	64260
aatgacttgc taactactt aacaagagct ttattatcag ctgtcttgg aggtaatagt	64320
attatcatga ttttcagaa aaagatcctg aggctcagtg tccaagggtcc aatgaactac	64380
tcaggtcggg ggtggtagag cagcatgtgg agccagttct ctctccgact ccatcatcac	64440
actgcacggc ttcctgttaa gatatttgc caaaaaatgc gagatataaa aatctggta	64500
atatgatcaa ccttaaagaa taattacatt ttaaattatt catgagacct tgtagtagg	64560
tcaccatcaa tggtaatta agccagatg gacaggattt gttgccttc ccttacttc	64620
tgaattttgg aggccctttt tttttctag ttgtatcgt cagccaacca atatctttt	64680
agcatctact aagtttagat acgggaactg gtactctgaa agagaaaatg agaaatttga	64740
caagatcctg tccccaaagga gcttcctatc caacaggggc acaagacaga tagatagaca	64800
cacacacacaca cacacacacaca cacacacacaca cacacacacaca ctataaagca aggcaagatt	64860
tagagagtgc acaggagtgg gctctggag ttcagggag ggtcgttac attctggtag	64920
ggaagatact tctgagctca gtatattccc ttctctactg tccttctatc ccctctcttc	64980
ctctcctcct ctctttcct ctttcttctc ctcctccca ctctgtcctc tcccttctt	65040
tcctttttc tttcttctt tttttttt agacagagtc ttgttctgtc acccatactg	65100
gagtacagtg gcacgatctc ggctcactgc aacctggcc tcccaggttc aaatgattct	65160
tgtgcctcag ctcctcgt agctggattt acaggcgcac accaccatgc ctggctaatt	65220
tttgcgtttt ttagtagaga cagggtttca ccatgttggc caggctggc ttgaactcct	65280
gacctaagt aatccaccca cttggccctc ccaaagtgc gggatcacag gcatgagcca	65340
ccacactggc ctcctctccc tttcttaaaa atacatcaat taattaaata tataaatgt	65400
gatacacaca caggcagaat caaaagtgtat aggttggaga ggagactgtt caaaaagggg	65460
ggatggcatg ggcaataacg gcaagaaaga gtagagcatc taggtactga ggggctggg	65520
aagtccctgct aaaaatacgg caagaaagag tagagcatct aggtactgag ggtgctggg	65580
agtccctgcta aagtggccc ctcccactgt gggcccttt agttccctg tgccagggt	65640
cctgcccctc gtgagtttga gttcttctt tgggttgcag caaccaagac cagctcagct	65700
aaaagaaaatg gatggatacc gactcatgag tcagaggggaa agctggacgt ctatgcccag	65760
agccaggcag aaacgggtca ggtctagagt ctgggaggag gaaaccgtat gacagctgct	65820
tcagggccca ggcgtcagg tgaaggcact gcatgttgc ttgttctca gatactctg	65880
ctcaagatgt gacttgcag gaggaatctg gctggccag ctgggacatg tggcttacc	65940
tctagaccag gagagaggag agtcttggg gacagtcccc atgtgttacc cctttgttta	66000
ggttactgag tcatcaacag atctcagttc aaatagtcac ttcttcaggg gcaatataacc	66060
ctcttcttacc cataaaactag gggcaacata ccctctctcc ctttcacac atgaccataa	66120
caccatgttag cactcaactc ttgttaagttt acatttaccc atgtgactct ttatgaacgt	66180
tcatctccat cccgagaccc acagtccatg agggtaccac cgttcttaggg ttttgcct	66240
tctcttgc tggggact taggactctg cctggcacag gcaaaaccct caatatttt	66300
tgaataaaatt aattaataaa cacgttaaaa tgaatatcag tagactacaa caagagtaac	66360
agtaggcgaa ggtggaaaggc aaagggtgggaa agaggtcagg gctctgagtg ctggctgtg	66420
gagtctgagg ttcaacttac agcgtctgg agacacgata ggttttagag aaaggaagcc	66480
tcatgctggt gccccagtgg gtactgacta tgcatttgc gccaaatcaa agtatttccc	66540
ataaaagtcat ctatcttcc ccagttgttgg ggacttccaa tggcaatggg aattaagata	66600
ctgagtaatt gggagatcaa gcaaaattt tactaacaag gcacacgaag tgattttca	66660
caggcaatgt taatgtttt ctttttatg tagtttaaa attctaaaag taacaaaatc	66720
acaactacca aacattttaga cgacaaaaat tatccataat cccaccatct taacacaacc	66780
actattatca tttgtttcc ttattcacat tttctacca tttctttaga ttttccaa	66840
atagaattac ttgttttagag gttatataaca tcttattttt ctggatataat atatataat	66900
agctatataat agctaaattt aataacagca atgtctgcag taccacttc tcaaattgtca	66960
actggcattt caatttttg agacagtctc tctctgttgc ccaggcagga ttgcgttgc	67020
atgatctcg ctcacggcaa ctcctccatc ccaggttcaa ggcactctca tgcctcagcc	67080
tcccaagtag ctgggattac aggtgtgcac caccacactt ggcttaatttt tttttttt	67140
agtagagatg ttgttttacc atgttggccg ggctggcttc aaactccctgg cctcaagtga	67200
tccttccacc tcagcctccc caagggtctgg tattacaggg atgagccact gcctggcctg	67260
gcatttcaat tttaaaatc ttcagtaata aatgaaaatt tttatctt ttttataatt	67320
tttatggttt ttttattttc atgagaataaa acattttcca agtttgc ttttgc ttttgc	67380

tcattgatag atggtagtag caacaataaa aaataatatt atcaagtaac tgattcataa	71160
ttgactctca aaaacgttaa tttctgctt tccttacct aagtttacct acatgttga	71220
atttgtaaag ggaagtttt tctagaccaa taatttcaa atattttgc tctcatactt	71280
cctccaaagga aactaaaaaa gttgcaacat acttgcattt catttttcta tataagttga	71340
aagaatagca aattgttatt ttcccacgca tcgtaaagat tagcaggta tcccttta	71400
aatatgtacca aatggaatct aaatatcatc gcaatttgac ccagcatcat ccatttaaac	71460
aaatatataaa gttttcttt aacaatgaga aattttatct cattacattt tctccctaaa	71520
ctcttatttc aatctacatt cctaagaatt ttatcctaattt gtagtatattttatgttta	71580
aatatctttt gttgatcaac acaattttga tcattttaa attttaaaaa ttaagaacat	71640
cctgtgacat caaattctag gtatgaaata tttattctag attgggtgat cattataatt	71700
attttttgtt cataattgtt caaaataaca taaatatact acaaatttctt atgactacta	71760
aacatataaa agtaaaaattt taaacaaata tattcttta tgagaaggaa gagctttta	71820
tactccaata agttaacgta tccactaata attattattt cttccttagaa caagacagga	71880
ttaaggcatca tgaccgtccc tattggggta tggtttata gatgcaagca ctgtggcacc	71940
tactggata aatgcacctg ctgattggaa tggtttcc ccagatctt ccctgctgg	72000
ttctcccaag tattcaggc tcagctcaa ttgtacttcc tcaatgaggc ctcctggta	72060
tcagatctaa agcacccctt acacaatcac ttgttagtgc tataccatt aatttactat	72120
catcacactt gtcactatct gcagatgtct ttgttagtgc ttgttagtgc tataccatt aatttactat	72180
gccagaatat cagttctatg aagaaaaggc cttgtctat ttgtacactt ataganatga	72240
tgnaggnacg acatacaaata gccaatggg catatggaa aacgcttgc ttcaagagta	72300
ctnatggnta tnaccaacat ttatggagta actacttga aaagaaccat tctgtttta	72360
ctatcaagcc aagataactca aggaaggcag cagaagtggg agctccatgt gggcagagga	72420
gcctagtctt gagatgtgat tttagtggta ttgggtgaa acaaataaac cagcctcaaa	72480
ataacacaag gggccgggtt cagtgctca cgcctgtatc ccagcactt gggaggctcg	72540
aggcaggcag attacttcag gtgaggagtt cgagaccaggc ctggctaaca tggtaacct	72600
ccat	72604

<210> 8	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 8	
cgggggttggt ttccacc	17
<210> 9	
<211> 19	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 9	
gcgaggagag aaatctggg	19
<210> 10	
<211> 22	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 10	
tgctcaactac ttgcgttgt tc	22

<210> 11		
<211> 22		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 11		22
tgagatcgta tcactgcatt ct		
<210> 12		
<211> 27		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 12		27
gttaaatctca aatgttggg ttaatag		
<210> 13		
<211> 24		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 13		24
cttaactcttc ttctatcatt actc		
<210> 14		
<211> 22		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 14		22
tgtttattgt gtgtctgctg tg		
<210> 15		
<211> 21		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 15		21
ggacaaccaa catgcaaaca g		
<210> 16		
<211> 22		
<212> DNA		
<213> Artificial Sequence		

<220>		
<223> Primer		
<400> 16		
cccgagggtttt ttcaatttgc gc		22
<210> 17		
<211> 22		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 17		
agcagtttttgc tccttccaag tg		22
<210> 18		
<211> 25		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 18		
gtgttttgtt atctgatcag atctc		25
<210> 19		
<211> 21		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 19		
gcagtatttc tggccagat c		21
<210> 20		
<211> 23		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 20		
ggtgtcacata gatcatgaaa tgg		23
<210> 21		
<211> 23		
<212> DNA		
<213> Homo sapiens		
<400> 21		
taagctgaaa taggtgcctt aag		23
<210> 22		
<211> 23		
<212> DNA		
<213> Artificial Sequence		

<220>		
<223> Primer		
<400> 22		
tttattccat ttctgtcccc tac		23
<210> 23		
<211> 22		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 23		
aaggctcagt taggtctgta tc		22
<210> 24		
<211> 23		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 24		
caggagttt aacgtttca gac		23
<210> 25		
<211> 23		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 25		
gactcagaaa tgtctaccat ttc		23
<210> 26		
<211> 22		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 26		
tgtctccact tcttcaaagt gc		22
<210> 27		
<211> 24		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 27		
caaaatgtac ctgagaactt aaag		24
<210> 28		
<211> 20		

<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 28		
cacctccaag tttcatggac		20
<210> 29		
<211> 22		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 29		
caaggtatgc acgtgtcatt tc		22
<210> 30		
<211> 25		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 30		
gaatgtgtat tgggatttag taaac		25
<210> 31		
<211> 25		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 31		
ttgagaattta actattcctg tcaac		25
<210> 32		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 32		
ccatcctgga cttttactcc		20
<210> 33		
<211> 23		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 33		

cttcctgca actgtgttta ttg

23

<210> 34

<211> 147

<212> DNA

<213> Homo sapiens

<400> 34

ttccctccct ttggaacgca gcgtggcac ctgcaacgca gagaccactg tatccccgt	60
gcagaatgtatgagtgct gatacatttgcgaataaac tattccaagg gttgaacttg	120
ctggaagcaa gagaagcact attctgg	147

<210> 35

<211> 123

<212> DNA

<213> Homo sapiens

<400> 35

atggagtctt gctctcgttt cccagactgg agtgcactgc tgcgatctca gctcactgca	60
acctctacctt cccaggttca agcgatttctc ctgcctcagc ctctcgagtg gctgggacta	120
tag	123

<210> 36

<211> 398

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(398)

<223> n = A,T,C or G

<400> 36

atttgcgtcc ctctctgttgcaggctgaa gttcagtggc atgttcatag ctcactgaag	60
cctccaaattt ntgggttcaa gtgaccctcc tacctcagcc ccatgaggac ctgggactac	120
atttccctcc ctgttgcgttgcaggctgaa gttcagtggc atgttcatag ctcactgaag	180
gtgcagaatgtatgagtgct gatacatttgcgaataaac tatttccaa gggttgaact	240
tgttgcgttgcgttgcaggctgaa gttcagtggc atgttcatag ctcactgaag	300
gtgttttattttgttgcgttgcaggctgaa gttcagtggc atgttcatag ctcactgaag	360
aaaactgcta tcagtgaaaa cctgaagagt ttttctga	398

<210> 37

<211> 372

<212> DNA

<213> Homo sapiens

<400> 37

atttgcgtcc ctctctgttgcaggctgaa gttcagtggc atgttcttag ctcactgaag	60
cctccaaattt ntgggttcaa gtgaccctcc cacccatcagcc ccatgaggac ctgggactac	120
agatggagtc ttgcgttgcgttgcaggctgaa gttcagtggc atgttcttag ctcactgaag	180
caacctctac ctcccagggtt caagcgatttgcgttgcaggctgaa gttcagtggc atgttcttag	240
tatagtaaca gcttgcgttgcaggctgaa gttcagtggc atgttcttag ctcactgaag	300
ttgaaagaca gtcactgcgc acccacttgg aaggacaaaa ctgctatcag tgaaaacctg	360
aagagttttt ct	372

<210> 38

<211> 1815

<212> DNA

<213> Cavia sp.

<220>
<221> CDS
<222> (145)...(1542)

<400> 38
ctggagtca actgagtgactgaaact tccaaaaact gacatgagga gtcactggag 60
aatcatgatc aaggagctac acactctgac ttaactttat tctgtggaca atgagagaca 120
actgcaagga ttaacagtga gaac atg aag ctg cca ctt ttg atg ttt ccc 171
Met Lys Leu Pro Leu Leu Met Phe Pro
1 5

gtg tgt ctg cta tgg ttg aaa gac tgt cat tgt gca cct act tgg aag 219
Val Cys Leu Leu Trp Leu Lys Asp Cys His Cys Ala Pro Thr Trp Lys
10 15 20 25

gac aaa act gcc atc agt gaa aac gcg aac agt ttt tct gag gct ggg 267
Asp Lys Thr Ala Ile Ser Glu Asn Ala Asn Ser Phe Ser Glu Ala Gly
30 35 40

gag ata gac gta gat gga gag gtg aag ata gct ttg att ggc att aaa 315
Glu Ile Asp Val Asp Gly Glu Val Lys Ile Ala Leu Ile Gly Ile Lys
45 50 55

cag atg aaa atc atg atg gaa agg aga gag gaa gaa cac agc aaa cta 363
Gln Met Lys Ile Met Met Glu Arg Arg Glu Glu His Ser Lys Leu
60 65 70

atg aaa acc ttg aag aag tgc aaa gaa gaa aag cag gag gcc ctg aaa 411
Met Lys Thr Leu Lys Lys Cys Lys Glu Glu Lys Gln Glu Ala Leu Lys
75 80 85

ctt atg aat gaa gtt cat gaa cac ctg gag gag gaa gaa agc tta tgc 459
Leu Met Asn Glu Val His Glu His Leu Glu Glu Glu Ser Leu Cys
90 95 100 105

cag gtt tct ctg gca gat tcc tgg gat gaa tgc agg gct tgc ctg gaa 507
Gln Val Ser Leu Ala Asp Ser Trp Asp Glu Cys Arg Ala Cys Leu Glu
110 115 120

agt aac tgc atg agg ttt gat acc acc tgc caa cct gca tgg tcc tct 555
Ser Asn Cys Met Arg Phe Asp Thr Thr Cys Gln Pro Ala Trp Ser Ser
125 130 135

gtg aaa aat atg gtg gaa cag ttt ttc agg aag atc tat cag ttt ctg 603
Val Lys Asn Met Val Glu Gln Phe Phe Arg Lys Ile Tyr Gln Phe Leu
140 145 150

ttt cct ctc cag gaa aat gac aga agt ggc cct gtc agc aaa ggg gtc 651
Phe Pro Leu Gln Glu Asn Asp Arg Ser Gly Pro Val Ser Lys Gly Val
155 160 165

act gag gaa gat gcg cag gtg tca cac ata gag cat gtg ttc agc cag 699
Thr Glu Glu Asp Ala Gln Val Ser His Ile Glu His Val Phe Ser Gln
170 175 180 185

ctg agc gca gat gtg aca tct ctc ttc aac aga agc ctt tac gtc ttc 747
Leu Ser Ala Asp Val Thr Ser Leu Phe Asn Arg Ser Leu Tyr Val Phe
190 195 200

aaa cag ctg cgg cga gaa ttt gac cag gct ttt cag tca tat ttc aca 795
Lys Gln Leu Arg Arg Glu Phe Asp Gln Ala Phe Gln Ser Tyr Phe Thr
205 210 215

tcg ggg act gac gtt aca gag cct ttc ttt cca tct ttg tcc aag Ser Gly Thr Asp Val Thr Glu Pro Phe Phe Pro Ser Leu Ser Lys 220 225 230	843
gag cca gcc tac aga gca gat gct gag cca agc tgg gcc att ccc aat Glu Pro Ala Tyr Arg Ala Asp Ala Glu Pro Ser Trp Ala Ile Pro Asn 235 240 245	891
gtc ttc cag ctg ctc tgc aac ttg agt ttc tca gtt tat caa agt gtc Val Phe Gln Leu Leu Cys Asn Leu Ser Phe Ser Val Tyr Gln Ser Val 250 255 260 265	939
agt gaa aaa ctc atc aca acc ctg cgt gcc aca gag gac cct cca aaa Ser Glu Lys Leu Ile Thr Thr Leu Arg Ala Thr Glu Asp Pro Pro Lys 270 275 280	987
caa gac aaa gac tcc aac cag gga ggc ccg att tca aag ata cta cct Gln Asp Lys Asp Ser Asn Gln Gly Gly Pro Ile Ser Lys Ile Leu Pro 285 290 295	1035
gag caa gac aga ggc tca gat ggg aaa ctt ggc cag aat ttg tct gat Glu Gln Asp Arg Gly Ser Asp Gly Lys Leu Gly Gln Asn Leu Ser Asp 300 305 310	1083
tgc gtt aat ttt cgc aag aga tgc cag aaa tgc cag gat tat cta tct Cys Val Asn Phe Arg Lys Arg Cys Gln Lys Cys Gln Asp Tyr Leu Ser 315 320 325	1131
gat gac tgc cct aat gtg cct gaa cta tac aga gaa ctc aat gag gcc Asp Asp Cys Pro Asn Val Pro Glu Leu Tyr Arg Glu Leu Asn Glu Ala 330 335 340 345	1179
ctc cga ctg gtc agt aga tcc aat cag caa tac gac cag gtg gtg cag Leu Arg Leu Val Ser Arg Ser Asn Gln Gln Tyr Asp Gln Val Val Gln 350 355 360	1227
atg acc cag tat cac ctg gaa gac acc acg ctt ctg atg gag aag atg Met Thr Gln Tyr His Leu Glu Asp Thr Thr Leu Leu Met Glu Lys Met 365 370 375	1275
aga gag cag ttt ggc tgg gtt tct gaa ctg gca tac cag tcc cca gga Arg Glu Gln Phe Gly Trp Val Ser Glu Leu Ala Tyr Gln Ser Pro Gly 380 385 390	1323
gct gag gac atc ttt aat cca gtg aaa gta atg gta gcc cta agt gct Ala Glu Asp Ile Phe Asn Pro Val Lys Val Met Val Ala Leu Ser Ala 395 400 405	1371
cat gaa gga aat tct tct gat caa gat gac aca gtg gtt cct tca agc His Glu Gly Asn Ser Ser Asp Gln Asp Asp Thr Val Val Pro Ser Ser 410 415 420 425	1419
ctc ctg cct tcc tct aac ttc aca ctc agc agc cct ctt gaa aag agt Leu Leu Pro Ser Ser Asn Phe Thr Leu Ser Ser Pro Leu Glu Lys Ser 430 435 440	1467
gct ggc aac gct aac ttc att gat cac gtg gta gag aag gtt ctt cag Ala Gly Asn Ala Asn Phe Ile Asp His Val Val Glu Lys Val Leu Gln 445 450 455	1515

cac ttt aag gag cac ttt aaa act tgg taagaagatt tagtccatcc	1562
His Phe Lys Glu His Phe Lys Thr Trp	
460	465

tataatcagc aagaattaca ctttcggcca agacctgaga attctgaaaa tacaaagcag	1622
gctaacacaa tgaacacagc tgcataaag ttagtataat attaggaagc actattggtt	1682
tactttgttg aatgaaagtt taatagctat tcaatttgag ttaatataaa aatttcttcc	1742
taaaaagtaa aatgtacata tgtagaatat gatcattag ttctttgtat actaaataaa	1802
tactgagtcc cct	1815

<210> 39
<211> 466
<212> PRT
<213> Cavia sp.

<400> 39	
Met Lys Leu Pro Leu Leu Met Phe Pro Val Cys Leu Leu Trp Leu Lys	
1 5 10 15	
Asp Cys His Cys Ala Pro Thr Trp Lys Asp Lys Thr Ala Ile Ser Glu	
20 25 30	
Asn Ala Asn Ser Phe Ser Glu Ala Gly Glu Ile Asp Val Asp Gly Glu	
35 40 45	
Val Lys Ile Ala Leu Ile Gly Ile Lys Gln Met Lys Ile Met Met Glu	
50 55 60	
Arg Arg Glu Glu Glu His Ser Lys Leu Met Lys Thr Leu Lys Lys Cys	
65 70 75 80	
Lys Glu Glu Lys Gln Glu Ala Leu Lys Leu Met Asn Glu Val His Glu	
85 90 95	
His Leu Glu Glu Glu Ser Leu Cys Gln Val Ser Leu Ala Asp Ser	
100 105 110	
Trp Asp Glu Cys Arg Ala Cys Leu Glu Ser Asn Cys Met Arg Phe Asp	
115 120 125	
Thr Thr Cys Gln Pro Ala Trp Ser Ser Val Lys Asn Met Val Glu Gln	
130 135 140	
Phe Phe Arg Lys Ile Tyr Gln Phe Leu Phe Pro Leu Gln Glu Asn Asp	
145 150 155 160	
Arg Ser Gly Pro Val Ser Lys Gly Val Thr Glu Glu Asp Ala Gln Val	
165 170 175	
Ser His Ile Glu His Val Phe Ser Gln Leu Ser Ala Asp Val Thr Ser	
180 185 190	
Leu Phe Asn Arg Ser Leu Tyr Val Phe Lys Gln Leu Arg Arg Glu Phe	
195 200 205	
Asp Gln Ala Phe Gln Ser Tyr Phe Thr Ser Gly Thr Asp Val Thr Glu	
210 215 220	
Pro Phe Phe Phe Pro Ser Leu Ser Lys Glu Pro Ala Tyr Arg Ala Asp	
225 230 235 240	
Ala Glu Pro Ser Trp Ala Ile Pro Asn Val Phe Gln Leu Leu Cys Asn	
245 250 255	
Leu Ser Phe Ser Val Tyr Gln Ser Val Ser Glu Lys Leu Ile Thr Thr	
260 265 270	
Leu Arg Ala Thr Glu Asp Pro Pro Lys Gln Asp Lys Asp Ser Asn Gln	
275 280 285	
Gly Gly Pro Ile Ser Lys Ile Leu Pro Glu Gln Asp Arg Gly Ser Asp	
290 295 300	
Gly Lys Leu Gly Gln Asn Leu Ser Asp Cys Val Asn Phe Arg Lys Arg	
305 310 315 320	
Cys Gln Lys Cys Gln Asp Tyr Leu Ser Asp Asp Cys Pro Asn Val Pro	
325 330 335	
Glu Leu Tyr Arg Glu Leu Asn Glu Ala Leu Arg Leu Val Ser Arg Ser	
340 345 350	
Asn Gln Gln Tyr Asp Gln Val Val Gln Met Thr Gln Tyr His Leu Glu	
355 360 365	

Asp Thr Thr Leu Leu Met Glu Lys Met Arg Glu Gln Phe Gly Trp Val
 370 375 380
 Ser Glu Leu Ala Tyr Gln Ser Pro Gly Ala Glu Asp Ile Phe Asn Pro
 385 390 395 400
 Val Lys Val Met Val Ala Leu Ser Ala His Glu Gly Asn Ser Ser Asp
 405 410 415
 Gln Asp Asp Thr Val Val Pro Ser Ser Leu Leu Pro Ser Ser Asn Phe
 420 425 430
 Thr Leu Ser Ser Pro Leu Glu Lys Ser Ala Gly Asn Ala Asn Phe Ile
 435 440 445
 Asp His Val Val Glu Lys Val Leu Gln His Phe Lys Glu His Phe Lys
 450 455 460
 Thr Trp
 465

<210> 40
 <211> 1767
 <212> DNA
 <213> Cavia sp.

<220>
 <221> CDS
 <222> (145)...(1494)

<400> 40

cttggagtca	actgagtg	tg	gactgaaact	tccaaaaact	gacatgagga	gtcactggag	60
aatcatgatc	aaggagctac	acactctgac	ttaactttat	tctgtggaca	atgagagaca	120	
actgcaagga	ttaacagtga	gaac	atg	aag	ctg	cc a tt ttg atg ttt ccc	171
			Met	Lys	Leu	Pro Leu Leu Met Phe Pro	
			1		5		

gtg	tgt	ctg	cta	tgg	ttg	aaa	gac	tgt	cat	tgt	gca	cct	act	tgg	aag	219
Val	Cys	Leu	Leu	Trp	Leu	Lys	Asp	Cys	His	Cys	Ala	Pro	Thr	Trp	Lys	
10				15		20					25					

gac	aaa	act	gcc	atc	agt	gaa	aac	gcg	aac	agt	ttt	tct	gag	gct	ggg	267
Asp	Lys	Thr	Ala	Ile	Ser	Glu	Asn	Ala	Asn	Ser	Phe	Ser	Glu	Ala	Gly	
				30			35				40					

gag	ata	gac	gta	gat	gga	gag	gtg	aag	ata	gct	ttg	att	ggc	att	aaa	315
Glu	Ile	Asp	Val	Asp	Gly	Glu	Val	Lys	Ile	Ala	Leu	Ile	Gly	Ile	Lys	
				45			50				55					

cag	atg	aaa	atc	atg	atg	gaa	agg	aga	gag	gaa	cac	agc	aaa	cta	363	
Gln	Met	Lys	Ile	Met	Met	Glu	Arg	Arg	Glu	Glu	Glu	His	Ser	Lys	Leu	
				60			65				70					

atg	aaa	acc	ttg	aag	aag	tgc	aaa	gaa	gaa	aag	cag	gag	gcc	ctg	aaa	411
Met	Lys	Thr	Leu	Lys	Cys	Lys	Glu	Glu	Lys	Gln	Glu	Ala	Leu	Lys		
				75			80				85					

ctt	atg	aat	gaa	gtt	cat	gaa	cac	ctg	gag	gag	gaa	gaa	agc	tta	tgc	459
Leu	Met	Asn	Glu	Val	His	Glu	His	Leu	Glu	Glu	Glu	Glu	Ser	Leu	Cys	
				90			95				100			105		

cag	gtt	tct	ctg	gca	gat	tcc	tgg	gat	gaa	tgc	agg	gct	tgc	ctg	gaa	507
Gln	Val	Ser	Leu	Ala	Asp	Ser	Trp	Asp	Glu	Cys	Arg	Ala	Cys	Leu	Glu	
				110			115				120					

agt	aac	tgc	atg	agg	ttt	gat	acc	acc	tgc	caa	cct	gca	tgg	tcc	tct	555
Ser	Asn	Cys	Met	Arg	Phe	Asp	Thr	Thr	Cys	Gln	Pro	Ala	Trp	Ser	Ser	
				125			130				135					

gtg aaa aat atg gaa aat gac aga agt ggc cct gtc agc aaa ggg gtc Val Lys Asn Met Glu Asn Asp Arg Ser Gly Pro Val Ser Lys Gly Val 140 145 150	603
act gag gaa gat gcg cag gtg tca cac ata gag cat gtg ttc agc cag Thr Glu Glu Asp Ala Gln Val Ser His Ile Glu His Val Phe Ser Gln 155 160 165	651
ctg agc gca gat gtg aca tct ctc ttc aac aga agc ctt tac gtc ttc Leu Ser Ala Asp Val Thr Ser Leu Phe Asn Arg Ser Leu Tyr Val Phe 170 175 180 185	699
aaa cag ctg cgg cga gaa ttt gac cag gct ttt cag tca tat ttc aca Lys Gln Leu Arg Arg Glu Phe Asp Gln Ala Phe Gln Ser Tyr Phe Thr 190 195 200	747
tcg ggg act gac gtt aca gag cct ttc ttt ttc cca tct ttg tcc aag Ser Gly Thr Asp Val Thr Glu Pro Phe Phe Pro Ser Leu Ser Lys 205 210 215	795
gag cca gcc tac aga gca gat gct gag cca agc tgg gcc att ccc aat Glu Pro Ala Tyr Arg Ala Asp Ala Glu Pro Ser Trp Ala Ile Pro Asn 220 225 230	843
gtc ttc cag ctg ctc tgc aac ttg agt ttc tca gtt tat caa agt gtc Val Phe Gln Leu Leu Cys Asn Leu Ser Phe Ser Val Tyr Gln Ser Val 235 240 245	891
agt gaa aaa ctc atc aca acc ctg cgt gcc aca gag gac cct cca aaa Ser Glu Lys Leu Ile Thr Thr Leu Arg Ala Thr Glu Asp Pro Pro Lys 250 255 260 265	939
caa gac aaa gac tcc aac cag gga ggc ccg att tca aag ata cta cct Gln Asp Lys Asp Ser Asn Gln Gly Pro Ile Ser Lys Ile Leu Pro 270 275 280	987
gag caa gac aga ggc tca gat ggg aaa ctt ggc cag aat ttg tct gat Glu Gln Asp Arg Gly Ser Asp Gly Lys Leu Gly Gln Asn Leu Ser Asp 285 290 295	1035
tgc gtt aat ttt cgc aag aga tgc cag aaa tgc cag gat tat cta tct Cys Val Asn Phe Arg Lys Arg Cys Gln Lys Cys Gln Asp Tyr Leu Ser 300 305 310	1083
gat gac tgc cct aat gtg cct gaa cta tac aga gaa ctc aat gag gcc Asp Asp Cys Pro Asn Val Pro Glu Leu Tyr Arg Glu Leu Asn Glu Ala 315 320 325	1131
ctc cga ctg gtc agt aga tcc aat cag caa tac gac cag gtg gtg cag Leu Arg Leu Val Ser Arg Ser Asn Gln Gln Tyr Asp Gln Val Val Gln 330 335 340 345	1179
atg acc cag tat cac ctg gaa gac acc acg ctt ctg atg gag aag atg Met Thr Gln Tyr His Leu Glu Asp Thr Thr Leu Leu Met Glu Lys Met 350 355 360	1227
aga gag cag ttt ggc tgg gtt tct gaa ctg gca tac cag tcc cca gga Arg Glu Gln Phe Gly Trp Val Ser Glu Leu Ala Tyr Gln Ser Pro Gly 365 370 375	1275

gct gag gac atc ttt aat cca gtg aaa gta atg gta gcc cta agt gct Ala Glu Asp Ile Phe Asn Pro Val Lys Val Met Val Ala Leu Ser Ala 380 385 390	1323
cat gaa gga aat tct tct gat caa gat gac aca gtg gtt cct tca agc His Glu Gly Asn Ser Ser Asp Gln Asp Asp Thr Val Val Pro Ser Ser 395 400 405	1371
ctc ctg cct tcc tct aac ttc aca ctc agc agc cct ctt gaa aag agt Leu Leu Pro Ser Ser Asn Phe Thr Leu Ser Ser Pro Leu Glu Lys Ser 410 415 420 425	1419
gct ggc aac gct aac ttc att gat cac gtg gta gag aag gtt ctt cag Ala Gly Asn Ala Asn Phe Ile Asp His Val Val Glu Lys Val Leu Gln 430 435 440	1467
cac ttt aag gag cac ttt aaa act tgg taagaagatt tagtccatcc His Phe Lys Glu His Phe Lys Thr Trp 445 450	1514
tataatcagc aagaattaca ctttcggcca agacctgaga attctgaaaa tacaaagcag gctaacacaa tgaacacagc tgcataaag ttagtataat attaggaagc actattggtt tactttgttg aatgaaagtt taatagctat tcaatttgag ttaatataaa aatttcttcc taaaaaagtaa aatgtacata tggaaatat gatgcattag ttctttgtat actaaataaa tactgagtcc cct	1574 1634 1694 1754 1767
<210> 41	
<211> 450	
<212> PRT	
<213> Cavia sp.	
<400> 41	
Met Lys Leu Pro Leu Leu Met Phe Pro Val Cys Leu Leu Trp Leu Lys 1 5 10 15	
Asp Cys His Cys Ala Pro Thr Trp Lys Asp Lys Thr Ala Ile Ser Glu 20 25 30	
Asn Ala Asn Ser Phe Ser Glu Ala Gly Glu Ile Asp Val Asp Gly Glu 35 40 45	
Val Lys Ile Ala Leu Ile Gly Ile Lys Gln Met Lys Ile Met Met Glu 50 55 60	
Arg Arg Glu Glu Glu His Ser Lys Leu Met Lys Thr Leu Lys Lys Cys 65 70 75 80	
Lys Glu Glu Lys Gln Glu Ala Leu Lys Leu Met Asn Glu Val His Glu 85 90 95	
His Leu Glu Glu Glu Ser Leu Cys Gln Val Ser Leu Ala Asp Ser 100 105 110	
Trp Asp Glu Cys Arg Ala Cys Leu Glu Ser Asn Cys Met Arg Phe Asp 115 120 125	
Thr Thr Cys Gln Pro Ala Trp Ser Ser Val Lys Asn Met Glu Asn Asp 130 135 140	
Arg Ser Gly Pro Val Ser Lys Gly Val Thr Glu Glu Asp Ala Gln Val 145 150 155 160	
Ser His Ile Glu His Val Phe Ser Gln Leu Ser Ala Asp Val Thr Ser 165 170 175	
Leu Phe Asn Arg Ser Leu Tyr Val Phe Lys Gln Leu Arg Arg Glu Phe 180 185 190	
Asp Gln Ala Phe Gln Ser Tyr Phe Thr Ser Gly Thr Asp Val Thr Glu 195 200 205	
Pro Phe Phe Phe Pro Ser Leu Ser Lys Glu Pro Ala Tyr Arg Ala Asp	

210	215	220														
Ala	Glu	Pro	Ser	Trp	Ala	Ile	Pro	Asn	Val	Phe	Gln	Leu	Leu	Cys	Asn	
225					230					235				240		
Leu	Ser	Phe	Ser	Val	Tyr	Gln	Ser	Val	Ser	Glu	Lys	Leu	Ile	Thr	Thr	
					245				250				255			
Leu	Arg	Ala	Thr	Glu	Asp	Pro	Pro	Lys	Gln	Asp	Lys	Asp	Ser	Asn	Gln	
					260				265				270			
Gly	Gly	Pro	Ile	Ser	Lys	Ile	Leu	Pro	Glu	Gln	Asp	Arg	Gly	Ser	Asp	
					275				280				285			
Gly	Lys	Leu	Gly	Gln	Asn	Leu	Ser	Asp	Cys	Val	Asn	Phe	Arg	Lys	Arg	
					290				295				300			
Cys	Gln	Lys	Cys	Gln	Asp	Tyr	Leu	Ser	Asp	Asp	Cys	Pro	Asn	Val	Pro	
305					310					315				320		
Glu	Leu	Tyr	Arg	Glu	Leu	Asn	Glu	Ala	Leu	Arg	Leu	Val	Ser	Arg	Ser	
					325					330				335		
Asn	Gln	Gln	Tyr	Asp	Gln	Val	Val	Gln	Met	Thr	Gln	Tyr	His	Leu	Glu	
					340					345				350		
Asp	Thr	Thr	Leu	Leu	Met	Glu	Lys	Met	Arg	Glu	Gln	Phe	Gly	Trp	Val	
					355					360				365		
Ser	Glu	Leu	Ala	Tyr	Gln	Ser	Pro	Gly	Ala	Glu	Asp	Ile	Phe	Asn	Pro	
					370					375				380		
Val	Lys	Val	Met	Val	Ala	Leu	Ser	Ala	His	Glu	Gly	Asn	Ser	Ser	Asp	
385						390					395				400	
Gln	Asp	Asp	Thr	Val	Val	Pro	Ser	Ser	Leu	Leu	Pro	Ser	Ser	Asn	Phe	
											405				415	
Thr	Leu	Ser	Ser	Pro	Leu	Glu	Lys	Ser	Ala	Gly	Asn	Ala	Asn	Phe	Ile	
										420				425		430
Asp	His	Val	Val	Glu	Lys	Val	Leu	Gln	His	Phe	Lys	Glu	His	Phe	Lys	
										435				440		445
Thr	Trp															
	450															

<210> 42
<211> 1539
<212> DNA
<213> Cavia sp.

<220>
<221> CDS
<222> (145)...(1266)

<400> 42																				
cttggagtca	actgagtg	tg	gactgaa	act	tccaaa	act	gacatgag	gga	gtcactgg	ag	60									
aatcatgatc	aaggagctac	acactctgac	ttaactttat	tctgtggaca	atgagagaca						120									
actgcaagga	ttaacagtga	gaac	atg	aag	ctg	cca	ctt	ttg	atg	ttt	ccc					171				
												Met	Lys	Leu	Pro	Leu	Leu	Met	Phe	Pro
												1		5						
gtg	tgt	ctg	cta	tgg	ttg	aaa	gac	tgt	cat	tgt	gca	cct	act	tgg	aag					219
Val	Cys	Leu	Leu	Trp	Leu	Lys	Asp	Cys	His	Cys	Ala	Pro	Thr	Trp	Lys					
10					15					20				25						
gac	aaa	act	gcc	atc	agt	gaa	aac	gcg	aac	agt	ttt	tct	gag	gct	ggg					267
Asp	Lys	Thr	Ala	Ile	Ser	Glu	Asn	Ala	Asn	Ser	Phe	Ser	Glu	Ala	Gly					
											30		35		40					
gag	ata	gac	gta	gat	gga	gag	gtg	aag	ata	gct	ttg	att	ggc	att	aaa					315
Glu	Ile	Asp	Val	Asp	Gly	Glu	Val	Lys	Ile	Ala	Leu	Ile	Gly	Ile	Lys					
											45		50		55					
cag	atg	aaa	atc	atg	atg	gaa	agg	aga	gag	gaa	gaa	cac	agc	aaa	cta					363
Gln	Met	Lys	Ile	Met	Met	Glu	Arg	Arg	Glu	Glu	Glu	His	Ser	Lys	Leu					

60	65	70	
atg aaa acc ttg aag aag tgc aaa gaa gaa aag cag gag gcc ctg aaa Met Lys Thr Leu Lys Lys Cys Lys Glu Glu Lys Gln Glu Ala Leu Lys 75	80	85	411
ctt atg aat gaa gtt cat gaa cac ctg gag gag gaa gaa agc tta tgc Leu Met Asn Glu Val His Glu His Leu Glu Glu Glu Ser Leu Cys 90	95	100	105
cag gtt tct ctg gca gat tcc tgg gat gaa tgc agg gct tgc ctg gaa Gln Val Ser Leu Ala Asp Ser Trp Asp Glu Cys Arg Ala Cys Leu Glu 110	115	120	507
agt aac tgc atg agg ttt gat acc acc tgc caa cct gca tgg tcc tct Ser Asn Cys Met Arg Phe Asp Thr Thr Cys Gln Pro Ala Trp Ser Ser 125	130	135	555
gtg aaa aat atg gag cca gcc tac aga gca gat gct gag cca agc tgg Val Lys Asn Met Glu Pro Ala Tyr Arg Ala Asp Ala Glu Pro Ser Trp 140	145	150	603
gcc att ccc aat gtc ttc cag ctg ctc tgc aac ttg agt ttc tca gtt Ala Ile Pro Asn Val Phe Gln Leu Leu Cys Asn Leu Ser Phe Ser Val 155	160	165	651
tat caa agt gtc agt gaa aaa ctc atc aca acc ctg cgt gcc aca gag Tyr Gln Ser Val Ser Glu Lys Leu Ile Thr Thr Leu Arg Ala Thr Glu 170	175	180	185
gac cct cca aaa caa gac aaa gac tcc aac cag gga ggc ccg att tca Asp Pro Pro Lys Gln Asp Lys Asp Ser Asn Gln Gly Gly Pro Ile Ser 190	195	200	747
aag ata cta cct gag caa gac aga ggc tca gat ggg aaa ctt ggc cag Lys Ile Leu Pro Glu Gln Asp Arg Gly Ser Asp Gly Lys Leu Gly Gln 205	210	215	795
aat ttg tct gat tgc gtt aat ttt cgc aag aga tgc cag aaa tgc cag Asn Leu Ser Asp Cys Val Asn Phe Arg Lys Arg Cys Gln Lys Cys Gln 220	225	230	843
gat tat cta tct gat gac tgc cct aat gtg cct gaa cta tac aga gaa Asp Tyr Leu Ser Asp Asp Cys Pro Asn Val Pro Glu Leu Tyr Arg Glu 235	240	245	891
ctc aat gag gcc ctc cga ctg gtc agt aga tcc aat cag caa tac gac Leu Asn Glu Ala Leu Arg Leu Val Ser Arg Ser Asn Gln Gln Tyr Asp 250	255	260	939
cag gtg gtg cag atg acc cag tat cac ctg gaa gac acc acg ctt ctg Gln Val Val Gln Met Thr Gln Tyr His Leu Glu Asp Thr Thr Leu Leu 270	275	280	987
atg gag aag atg aga gag cag ttt ggc tgg gtt tct gaa ctg gca tac Met Glu Lys Met Arg Glu Gln Phe Gly Trp Val Ser Glu Leu Ala Tyr 285	290	295	1035
cag tcc cca gga gct gag gac atc ttt aat cca gtg aaa gta atg gta Gln Ser Pro Gly Ala Glu Asp Ile Phe Asn Pro Val Lys Val Met Val 300	305	310	1083

gcc cta agt gct cat gaa gga aat tct tct gat caa gat gac aca gtg 1131
 Ala Leu Ser Ala His Glu Gly Asn Ser Ser Asp Gln Asp Asp Thr Val
 315 320 325

 gtt cct tca agc ctc ctg cct tcc tct aac ttc aca ctc agc agc cct 1179
 Val Pro Ser Ser Leu Leu Pro Ser Ser Asn Phe Thr Leu Ser Ser Pro
 330 335 340 345

 ctt gaa aag agt gct ggc aac gct aac ttc att gat cac gtg gta gag 1227
 Leu Glu Lys Ser Ala Gly Asn Ala Asn Phe Ile Asp His Val Val Glu
 350 355 360

 aag gtt ctt cag cac ttt aag gag cac ttt aaa act tgg taagaagatt 1276
 Lys Val Leu Gln His Phe Lys Glu His Phe Lys Thr Trp
 365 370

 tagtccatcc tataatcagc aagaattaca ccttcggcca agacctgaga attctgaaaa 1336
 tacaaaagcag gctaacacaa tgaacacagc tgcataaag tttagtataat attaggaagc 1396
 actattggtt tactttgttg aatggaaagtt taatagctat tcaaattttagg ttaatataaa 1456
 aatttcttcc taaaaagtaa aatgtacata tggaaatat gatgcattag ttctttgttat 1516
 actaaataaa tactgagtc cct 1539

 <210> 43
 <211> 374
 <212> PRT
 <213> Cavia sp.

 <400> 43
 Met Lys Leu Pro Leu Leu Met Phe Pro Val Cys Leu Leu Trp Leu Lys 1 5 10 15
 Asp Cys His Cys Ala Pro Thr Trp Lys Asp Lys Thr Ala Ile Ser Glu 20 25 30
 Asn Ala Asn Ser Phe Ser Glu Ala Gly Glu Ile Asp Val Asp Gly Glu 35 40 45
 Val Lys Ile Ala Leu Ile Gly Ile Lys Gln Met Lys Ile Met Met Glu 50 55 60
 Arg Arg Glu Glu Glu His Ser Lys Leu Met Lys Thr Leu Lys Lys Cys 65 70 75 80
 Lys Glu Glu Lys Gln Glu Ala Leu Lys Leu Met Asn Glu Val His Glu 85 90 95
 His Leu Glu Glu Glu Ser Leu Cys Gln Val Ser Leu Ala Asp Ser 100 105 110
 Trp Asp Glu Cys Arg Ala Cys Leu Glu Ser Asn Cys Met Arg Phe Asp 115 120 125
 Thr Thr Cys Gln Pro Ala Trp Ser Ser Val Lys Asn Met Glu Pro Ala 130 135 140
 Tyr Arg Ala Asp Ala Glu Pro Ser Trp Ala Ile Pro Asn Val Phe Gln 145 150 155 160
 Leu Leu Cys Asn Leu Ser Phe Ser Val Tyr Gln Ser Val Ser Glu Lys 165 170 175
 Leu Ile Thr Thr Leu Arg Ala Thr Glu Asp Pro Pro Lys Gln Asp Lys 180 185 190
 Asp Ser Asn Gln Gly Gly Pro Ile Ser Lys Ile Leu Pro Glu Gln Asp 195 200 205
 Arg Gly Ser Asp Gly Lys Leu Gly Gln Asn Leu Ser Asp Cys Val Asn 210 215 220
 Phe Arg Lys Arg Cys Gln Lys Cys Gln Asp Tyr Leu Ser Asp Asp Cys 225 230 235 240
 Pro Asn Val Pro Glu Leu Tyr Arg Glu Leu Asn Glu Ala Leu Arg Leu

245	250	255
Val Ser Arg Ser Asn Gln Gln Tyr Asp Gln Val Val Gln Met Thr Gln		
260	265	270
Tyr His Leu Glu Asp Thr Thr Leu Leu Met Glu Lys Met Arg Glu Gln		
275	280	285
Phe Gly Trp Val Ser Glu Leu Ala Tyr Gln Ser Pro Gly Ala Glu Asp		
290	295	300
Ile Phe Asn Pro Val Lys Val Met Val Ala Leu Ser Ala His Glu Gly		
305	310	315
Asn Ser Ser Asp Gln Asp Asp Thr Val Val Pro Ser Ser Leu Leu Pro		
325	330	335
Ser Ser Asn Phe Thr Leu Ser Ser Pro Leu Glu Lys Ser Ala Gly Asn		
340	345	350
Ala Asn Phe Ile Asp His Val Val Glu Lys Val Leu Gln His Phe Lys		
355	360	365
Glu His Phe Lys Thr Trp		
370		

<210> 44
<211> 1536
<212> DNA
<213> Cavia sp.

<220>
<221> CDS
<222> (145)...(1263)

<400> 44		
cttggagtca actgagtggtg gactgaaact tccaaaaact gacatgagga gtcactggag		60
aatcatgatc aaggagctac acactctgac ttaactttat tctgtggaca atgagagaca		120
actgcaagga ttaacagtga gaac atg aag ctg cca ctt ttg atg ttt ccc		171
Met Lys Leu Pro Leu Leu Met Phe Pro		
1	5	
gtg tgt ctg cta tgg ttg aaa gac tgt cat tgt gca cct act tgg aag		219
Val Cys Leu Leu Trp Leu Lys Asp Cys His Cys Ala Pro Thr Trp Lys		
10 15 20 25		
gac aaa act gcc atc agt gaa aac gcg aac agt ttt tct gag gct ggg		267
Asp Lys Thr Ala Ile Ser Glu Asn Ala Asn Ser Phe Ser Glu Ala Gly		
30 35 40		
gag ata gac gta gat gga gag gtg aag ata gct ttg att ggc att aaa		315
Glu Ile Asp Val Asp Gly Glu Val Lys Ile Ala Leu Ile Gly Ile Lys		
45 50 55		
cag atg aaa atc atg atg gaa agg aga gag gaa gaa cac agc aaa cta		363
Gln Met Lys Ile Met Met Glu Arg Arg Glu Glu Glu His Ser Lys Leu		
60 65 70		
atg aaa acc ttg aag aag tgc aaa gaa gaa aag cag gag gcc ctg aaa		411
Met Lys Thr Leu Lys Lys Cys Lys Glu Glu Lys Gln Glu Ala Leu Lys		
75 80 85		
ctt atg aat gaa gtt cat gaa cac ctg gag gag gaa gaa agc tta tgc		459
Leu Met Asn Glu Val His Glu His Leu Glu Glu Glu Ser Leu Cys		
90 95 100 105		
cag gtt tct ctg gca gat tcc tgg gat gaa tgc agg gct tgc ctg gaa		507
Gln Val Ser Leu Ala Asp Ser Trp Asp Glu Cys Arg Ala Cys Leu Glu		
110 115 120		

agt aac tgc atg agg ttt gat acc acc tgc caa cct gca tgg tcc tct Ser Asn Cys Met Arg Phe Asp Thr Thr Cys Gln Pro Ala Trp Ser Ser 125 130 135	555
gtg aaa aat atg cca gcc tac aga gca gat gct gag cca agc tgg gcc Val Lys Asn Met Pro Ala Tyr Arg Ala Asp Ala Glu Pro Ser Trp Ala 140 145 150	603
att ccc aat gtc ttc cag ctg ctc tgc aac ttg agt ttc tca gtt tat Ile Pro Asn Val Phe Gln Leu Leu Cys Asn Leu Ser Phe Ser Val Tyr 155 160 165	651
caa agt gtc agt gaa aaa ctc atc aca acc ctg cgt gcc aca gag gac Gln Ser Val Ser Glu Lys Leu Ile Thr Thr Leu Arg Ala Thr Glu Asp 170 175 180 185	699
cct cca aaa caa gac aaa gac tcc aac cag gga ggc ccg att tca aag Pro Pro Lys Gln Asp Lys Asp Ser Asn Gln Gly Gly Pro Ile Ser Lys 190 195 200	747
ata cta cct gag caa gac aga ggc tca gat ggg aaa ctt ggc cag aat Ile Leu Pro Glu Gln Asp Arg Gly Ser Asp Gly Lys Leu Gly Gln Asn 205 210 215	795
ttg tct gat tgc gtt aat ttt cgc aag aga tgc cag aaa tgc cag gat Leu Ser Asp Cys Val Asn Phe Arg Lys Arg Cys Gln Lys Cys Gln Asp 220 225 230	843
tat cta tct gat gac tgc cct aat gtg cct gaa cta tac aga gaa ctc Tyr Leu Ser Asp Asp Cys Pro Asn Val Pro Glu Leu Tyr Arg Glu Leu 235 240 245	891
aat gag gcc ctc cga ctg gtc agt aga tcc aat cag caa tac gac cag Asn Glu Ala Leu Arg Leu Val Ser Arg Ser Asn Gln Gln Tyr Asp Gln 250 255 260 265	939
gtg gtg cag atg acc cag tat cac ctg gaa gac acc acg ctt ctg atg Val Val Gln Met Thr Gln Tyr His Leu Glu Asp Thr Thr Leu Leu Met 270 275 280	987
gag aag atg aga gag cag ttt ggc tgg gtt tct gaa ctg gca tac cag Glu Lys Met Arg Glu Gln Phe Gly Trp Val Ser Glu Leu Ala Tyr Gln 285 290 295	1035
tcc cca gga gct gag gac atc ttt aat cca gtg aaa gta atg gta gcc Ser Pro Gly Ala Glu Asp Ile Phe Asn Pro Val Lys Val Met Val Ala 300 305 310	1083
cta agt gct cat gaa gga aat tct tct gat caa gat gac aca gtg gtt Leu Ser Ala His Glu Gly Asn Ser Ser Asp Gln Asp Asp Thr Val Val 315 320 325	1131
cct tca agc ctc ctg cct tcc tct aac ttc aca ctc agc agc cct ctt Pro Ser Ser Leu Leu Pro Ser Ser Asn Phe Thr Leu Ser Ser Pro Leu 330 335 340 345	1179
gaa aag agt gct ggc aac gac gct aac ttc att gat cac gtg gta gag aag Glu Lys Ser Ala Gly Asn Ala Asn Phe Ile Asp His Val Val Glu Lys 350 355 360	1227
gtt ctt cag cac ttt aag gag cac ttt aaa act tgg taagaagatt Val Leu Gln His Phe Lys Glu His Phe Lys Thr Trp	1273

tagtccatcc tataatcagc aagaattaca ccttcggcca agacctgaga attctgaaaa	1333
tacaaagcag gctaacacaa tgaacacacg tgcataaag tttaggtatattat taggaagc	1393
actattggtt tactttgtt aatggaaaggtaatagctat tcaaattttag ttaatataaa	1453
aatttcttc taaaaagtaa aatgtacata tgtagaatat gatgcattag ttctttgtat	1513
actaaataaa tactgagtcc cct	1536

<210> 45
<211> 373
<212> PRT
<213> Cavia sp.

<400> 45	
Met Lys Leu Pro Leu Leu Met Phe Pro Val Cys Leu Leu Trp Leu Lys	
1 5 10 15	
Asp Cys His Cys Ala Pro Thr Trp Lys Asp Lys Thr Ala Ile Ser Glu	
20 25 30	
Asn Ala Asn Ser Phe Ser Glu Ala Gly Glu Ile Asp Val Asp Gly Glu	
35 40 45	
Val Lys Ile Ala Leu Ile Gly Ile Lys Gln Met Lys Ile Met Met Glu	
50 55 60	
Arg Arg Glu Glu Glu His Ser Lys Leu Met Lys Thr Leu Lys Lys Cys	
65 70 75 80	
Lys Glu Glu Lys Gln Glu Ala Leu Lys Leu Met Asn Glu Val His Glu	
85 90 95	
His Leu Glu Glu Glu Ser Leu Cys Gln Val Ser Leu Ala Asp Ser	
100 105 110	
Trp Asp Glu Cys Arg Ala Cys Leu Glu Ser Asn Cys Met Arg Phe Asp	
115 120 125	
Thr Thr Cys Gln Pro Ala Trp Ser Ser Val Lys Asn Met Pro Ala Tyr	
130 135 140	
Arg Ala Asp Ala Glu Pro Ser Trp Ala Ile Pro Asn Val Phe Gln Leu	
145 150 155 160	
Leu Cys Asn Leu Ser Phe Ser Val Tyr Gln Ser Val Ser Glu Lys Leu	
165 170 175	
Ile Thr Thr Leu Arg Ala Thr Glu Asp Pro Pro Lys Gln Asp Lys Asp	
180 185 190	
Ser Asn Gln Gly Gly Pro Ile Ser Lys Ile Leu Pro Glu Gln Asp Arg	
195 200 205	
Gly Ser Asp Gly Lys Leu Gly Gln Asn Leu Ser Asp Cys Val Asn Phe	
210 215 220	
Arg Lys Arg Cys Gln Lys Cys Gln Asp Tyr Leu Ser Asp Asp Cys Pro	
225 230 235 240	
Asn Val Pro Glu Leu Tyr Arg Glu Leu Asn Glu Ala Leu Arg Leu Val	
245 250 255	
Ser Arg Ser Asn Gln Gln Tyr Asp Gln Val Val Gln Met Thr Gln Tyr	
260 265 270	
His Leu Glu Asp Thr Thr Leu Leu Met Glu Lys Met Arg Glu Gln Phe	
275 280 285	
Gly Trp Val Ser Glu Leu Ala Tyr Gln Ser Pro Gly Ala Glu Asp Ile	
290 295 300	
Phe Asn Pro Val Lys Val Met Val Ala Leu Ser Ala His Glu Gly Asn	
305 310 315 320	
Ser Ser Asp Gln Asp Asp Thr Val Val Pro Ser Ser Leu Leu Pro Ser	
325 330 335	
Ser Asn Phe Thr Leu Ser Ser Pro Leu Glu Lys Ser Ala Gly Asn Ala	
340 345 350	
Asn Phe Ile Asp His Val Val Glu Lys Val Leu Gln His Phe Lys Glu	
355 360 365	

His Phe Lys Thr Trp

370

<210> 46

<211> 2464

<212> DNA

<213> Bos sp.

<400> 46

gcaacctcgt	tggtagagc	ctgcagttag	tgtcacggcg	gaaacatgaa	gcccactc	60
ttgggttta	ttgttatct	gctcggtctg	agagactgtc	agtgtgcgcc	tacagggaaag	120
gaccgaacct	ccatccgtga	agacccgaag	ggttttcca	aggctgggaa	gataagacgt	180
gatgaagagg	tgaagaaggc	tttgattgac	atgaagcaga	tgaaaatcct	gatggaaaga	240
agagaggagg	aacatagcaa	actaatgaga	acactgaaga	aatgcagaga	agaaaagcag	300
gaggccctga	agcttatgaa	tgaagttcaa	gaacatctag	aagaggaaga	aaggctatgc	360
caagggtctc	tgatgggttc	ctgggacgaa	tgcaaatctt	gcctggaaag	tgactgcatt	420
agatttata	caacctgcca	aagcagttgg	tccttatga	aatccacat	tgaacgggtt	480
ttccggaaaga	tatattatgtt	tctctttcct	ttccatgaag	acgatgaaaaa	agagcttcct	540
gttggtgaga	agttcaactga	ggaagatgt	cagctgatgc	agatagagaa	tgtgttcagc	600
cagctgaccg	tggatgtggg	atttctctat	aacatgagct	ttcacgtctt	caaacagatg	660
cagcaagaat	ttgacttggc	ttttcaatca	tactttatgt	cagacacacaga	ctccatggag	720
ccttactttt	ttccagcttt	ttccaaagag	ccagaaaaaa	aagcacatcc	tatgcagagt	780
tggacattc	ccagcttctt	ccagctgtt	tgtatattca	gcctctctgt	ttatcaaagt	840
gtcagcgcaa	cagttacaga	gatgctgaag	gccattgagg	acttatccaa	acaagacaaa	900
gattctgccc	acggttggacc	gagttccacg	acgtggctg	tgccggccag	agggctgtgt	960
ggagaacac	gccagaactc	gtccgaatgt	ctccaaatttc	atgcaagatg	ccagaaatgt	1020
caggattacc	tatggcaga	ctggcctgt	gttcctgaac	tatacacaaaa	ggcggatgag	1080
gcccttgagt	tggtaacat	atccaatcag	cagtagcccc	aggtactcca	gatgacccag	1140
catcaattgg	aggacaccac	gtatctgt	gagaagatga	gagagcagtt	tgggtggta	1200
acagagctgg	ccagccagac	cccaggaagc	gagaacatct	tcagtttcat	aaaggttagtt	1260
ccaggtgttc	acgaaggaaa	tttctccaaa	caagatgaaa	agatgataga	cataagcatt	1320
ctgccttcc	ctaatttac	actcaccatc	ccttttgaag	aaagtgtgt	gagttccgac	1380
ttcatttagct	acatgttggc	caaagctgt	cagcattttt	aggaacattt	taaatcttgg	1440
taagcagagt	atttgattag	ggacgtttgc	tgtataggaat	agatggttct	taaaagggaa	1500
aaatgacaaa	actagctttt	gaataccctg	aaaacgtatt	caacctcatt	aataatcaaa	1560
ggcatgaaaa	ctaagacaag	ttagcagtt	ttacccattt	aattttcaaa	ttaaaaaaaa	1620
aaatccctgat	agaatcaat	gaaatgagaa	ttcttataat	tgattgcccag	aaacaaactg	1680
gttttgtctt	tttggaaaat	tattcaatta	tacatatcaa	gagtcatcaa	atttcttttt	1740
aatataataa	ttccacttct	gaaatcaatc	caaaggagta	aatctaaaat	tgaattgaag	1800
ttcccccccc	aagatcaata	tttgcattt	attttttttt	gtaaaactgtt	aaaaactgaa	1860
tgtcatctga	atgtctaaaa	accagaaatg	gttttttttt	gtggctaat	atgctccaaa	1920
tatcttataa	aaccattaaa	aatattttt	aaattttttt	catgacatga	catctgctgg	1980
aacaagagt	tattctaagg	ctatctataa	ggcaaatatt	attattacta	tcttccagaa	2040
aagaaaactt	agactcagg	tccaaatgtt	agttgtctag	tcatgtctga	ctctttggta	2100
cccccttggac	tgtagccac	caggcttcct	tgtccgtgg	attcttctgt	caggaatact	2160
ggggcagggt	gctatttcc	tctccaggaa	atctcccta	tccaggatg	gaacccaggt	2220
ctccctgcatt	gcaggtagat	gtttttactat	ctgagcaacc	aaatgat	ctcaagtcag	2280
tagggggtag	aggcaatatt	taacttagtt	ttctctgtat	cataattgcc	acattaaact	2340
gtttcctgtt	gggacattt	gttggaaaaaa	ataaagtgaa	aaatgatgtat	aaaactctat	2400
aaatgtat	atcaaaacga	aaaaaaatct	acaatctgca	ttaaaaataa	aaagggttgg	2460
cagg						2464

<210> 47

<211> 3016

<212> DNA

<213> Bos sp.

<400> 47

cagaagctgg	tggcaacctc	gttggtgaga	gcctgcagtt	agtgtcacgg	cgaaaacatg	60
aagccgcccc	tcttgggttt	tattgtgtat	ctgtgcggc	tgagagactg	tcagtgtgcg	120
cctacaggg	aggccgaac	ttccatccgt	gaagacccga	agggttttc	caaggctggg	180
gagatagacg	tagatgaaga	ggtgaagaag	gcttgattt	gcatgaagca	gatgaaaatc	240

ctgatggaaa	gaagagagga	ggaacatagc	aaactaatga	gaacactgaa	gaaatgcaga	300
gaagaaaagc	aggaggccct	gaagcttatg	aatgaagttc	aagaacatct	agaagaggaa	360
gaaaaggctat	gccaggtgtc	tctgatgggt	tcctgggacg	aatgcaaattc	ttgcctggaa	420
agtgactgca	tgagattta	tacaacctgc	caaagcagtt	ggtcctctat	gaaatccacg	480
attgaacggg	tttccggaa	gatatatcag	tttcttcc	cttccatga	agacgatgaa	540
aaagagctt	ctgttggta	gaagttca	gaggaagatg	tacagctgt	gcagatagag	600
aatgtgttca	gccagctgac	cgtggatgt	ggatttctct	ataacatgag	ctttcacgtc	660
ttcaaaacaga	tgcagaaga	atttgacctg	gctttcaat	catactttat	gtcagacaca	720
gactccatgg	agcctactt	ttttccagct	ttttccaaag	agccagcaaa	aaaagcacat	780
cctatgcaga	gttggacat	tccagcttc	ttccagctgt	ttttaattt	cagcctctct	840
gtttatcaaa	gtgtcagcgc	aacagttaca	gagatgtga	aggccatga	ggacttatcc	900
aaacaagaca	aagattctgc	ccacgggtgga	ccgagttcca	cgacgtggcc	tgtcgggggc	960
agagggctgt	gtggagaacc	tggccagaac	tcgtccgaat	gtctccaatt	tcatgcaaga	1020
tgccagaaat	gtcaggttta	cctatggca	gactgcctg	ctgttccgt	actatacaca	1080
aaggcggatg	aggcccttga	gttggtcaac	atattcaatc	agcgtatgc	ccaggtactc	1140
caagatgaccc	agcatcaactt	ggaggacacc	acgtatctga	tggagaagat	gagagagcag	1200
tttgggttgg	taacagagct	gccagccag	acccaggaa	gcgagaacat	cttcagttc	1260
ataaaggtag	ttccaggtgt	tcacgaagga	aatttctcca	aacaagatga	aaagatgata	1320
gacataagca	ttctgccttc	ctctaatttc	acactcacca	tccctcttga	agaaagtgtct	1380
gagagttccg	acttcattag	ctacatgctg	gccaaagctg	tacagcattt	taaggaacat	1440
ttaaatctt	ggtaagcaga	gtatttgatt	agggacgtt	gctgatagga	atagatggtt	1500
cttaaaagg	aaaaatgaca	aaactagctt	ttgaataacct	tggaaacgta	ttcaacctca	1560
ttaataatca	aaggcatgaa	aactaagaca	agtttagcgt	ttttacctat	tgaattttca	1620
aattaaaaaa	aaaaatcctg	atagaatgca	atgaaatgag	aattcttata	tgtgattgcc	1680
agaaacaaac	tggtttgc	ttttgaaaaa	gttattcaat	tatacatatc	aagagtcatc	1740
aaatttctt	ttaatataat	aattccactt	ctggaatcaa	tccaaaggag	taaatctaaa	1800
attgaattga	agttcccacc	ccaagatcaa	tatttgc	ttatttaaaa	tagtaaactg	1860
ttaaaaaactg	aatgtcatct	gaatgtctaa	aaaccaggaa	tggtaaaag	ctgtggctaa	1920
atatgctca	aatatctt	aaaaccat	aaaatattt	taaaatttta	atcatgacat	1980
gacatctgct	ggaacaagag	tttattctaa	gcctatctat	aaggcaaata	ttatttattac	2040
tatcttccag	aaaagaaaact	tgagactcag	ggtccaagt	ttagttgtc	agtcatgtct	2100
gactcttga	gacccttgg	actgtggcc	accaggctcc	tctgtccatg	ggatttctca	2160
gacaagaata	ctggagcagg	ttgctattt	cttctccagg	aatcttccc	tatccaggga	2220
tggAACCCAG	gtctcctgca	ttgcaggtag	atgcattact	atctgagcaa	ccaaatgaat	2280
tactcaagtc	agtaggggt	agaggcaat	tttaacttag	tttctctg	atcataattg	2340
ccacattaaa	ctggttcctg	ttgggacatt	tggttggaaa	aaataaagt	aaaaatgagt	2400
ataaaaactct	ataaaatgtaa	tgatcaaaac	gaaaaaaaaat	ctacaatctg	cattaaaaat	2460
aaaaagggtt	ggcagaatt	acggttggaa	atggatgatt	tttttaacc	ttttcatctt	2520
ttgatatttt	acaattttct	ataatgaaata	aataatttt	agatttcaaa	ttagaagata	2580
tgttgc	atagttagt	aatgttagat	tgaacactgt	atcaatgtgt	tctcatcttt	2640
aaacttttagt	ataagtactt	ctattccatg	gtaatcctac	agtaagacga	aatgtaaatc	2700
tgttcggtct	acagaaaaaa	caactaaatg	acattcaga	cgtacattac	catctctgtt	2760
agataatct	tctgaattaa	ttggcacaatt	agaactgtac	atagtattct	ccttggtaa	2820
aatggtcaat	cttaaagaag	cattaaatgt	taattctaa	ttattactca	taagggacct	2880
tgttaggtagg	tccctatcaa	tgtataat	agctgggtat	ttctagattc	gctgcctctc	2940
ccttatctc	tgaatgttgg	agaggttgtt	ggtcatcaat	caaccaat	cttttagca	3000
tcttctaagt	gaaggc					3016

<210> 48
 <211> 2488
 <212> DNA
 <213> Bos sp.

<220>
 <221> CDS
 <222> (71)...(1465)

<400> 48
 gtgaaggtcc ttacagaagc tggggcaac ctcgttggtg agagcctgca gttagtgtca
 cggcggaaac atg aag ccg cca atc ttg gtg ttt atc gtg tat ctg ctg

Met Lys Pro Pro Ile Leu Val Phe Ile Val Tyr Leu Leu

1

5

10

60

109

cag ctg aga gac tgt cag tgt gcg cct aca ggg aag gac cga act tcc Gln Leu Arg Asp Cys Gln Cys Ala Pro Thr Gly Lys Asp Arg Thr Ser 15 20 25	157
atc cgt gaa gac ccg aag ggt ttt tcc aag gct ggg gag ata gac gta Ile Arg Glu Asp Pro Lys Gly Phe Ser Lys Ala Gly Glu Ile Asp Val 30 35 40 45	205
gat gaa gag gtg aag aag gct ttg att ggc atg aag cag atg aaa atc Asp Glu Glu Val Lys Lys Ala Leu Ile Gly Met Lys Gln Met Lys Ile 50 55 60	253
ctg atg gaa aga aga gag gag gaa cat agc aaa cta atg aga acc ctg Leu Met Glu Arg Arg Glu Glu His Ser Lys Leu Met Arg Thr Leu 65 70 75	301
aag aaa tgc aga gaa aag cag gag gcc ctg aag ctt atg aat gaa Lys Lys Cys Arg Glu Glu Lys Gln Glu Ala Leu Lys Leu Met Asn Glu 80 85 90	349
gtt caa gaa cat cta gaa gag gaa agg cta tgc cag gtg tct ctg Val Gln Glu His Leu Glu Glu Glu Arg Leu Cys Gln Val Ser Leu 95 100 105	397
atg ggt tcc tgg gac gaa tgc aaa tct tgc ctg gaa agt gac tgc atg Met Gly Ser Trp Asp Glu Cys Lys Ser Cys Leu Glu Ser Asp Cys Met 110 115 120 125	445
aga ttt tat aca acc tgc caa agc agt tgg tcc tct atg aaa tcc acg Arg Phe Tyr Thr Cys Gln Ser Ser Trp Ser Ser Met Lys Ser Thr 130 135 140	493
att gaa cgg gtt ttc cgg aag ata tat cag ttt ctc ttt cct ttc cat Ile Glu Arg Val Phe Arg Lys Ile Tyr Gln Phe Leu Phe Pro Phe His 145 150 155	541
gaa gac gat gaa aaa gag ctt cct gtt ggt gag aag ttc act gag gaa Glu Asp Asp Glu Lys Glu Leu Pro Val Gly Glu Lys Phe Thr Glu Glu 160 165 170	589
gat gta cag ctg atg cag ata gag aat gtg ttc agc cag ctg acc gtg Asp Val Gln Leu Met Gln Ile Glu Asn Val Phe Ser Gln Leu Thr Val 175 180 185	637
gac gtg gga ttt ctc tat aac atg agc ttt cac gtc ttc aaa cag atg Asp Val Gly Phe Leu Tyr Asn Met Ser Phe His Val Phe Lys Gln Met 190 195 200 205	685
cag caa gaa ttt gac ctg gct ttt caa tca tac ttt atg tca gac aca Gln Gln Glu Phe Asp Leu Ala Phe Gln Ser Tyr Phe Met Ser Asp Thr 210 215 220	733
gac tcc atg gag cct tac ttt cca gct ttt tcc aaa gag cca gca Asp Ser Met Glu Pro Tyr Phe Pro Ala Phe Ser Lys Glu Pro Ala 225 230 235	781
aaa aaa gca cat cct atg cag agt tgg gac att ccc agc ttc ttc cag Lys Lys Ala His Pro Met Gln Ser Trp Asp Ile Pro Ser Phe Phe Gln 240 245 250	829

ctg ttt tgt aat ttc agc ctc tct gtt tat caa agt gtc agc gca aca Leu Phe Cys Asn Phe Ser Leu Ser Val Tyr Gln Ser Val Ser Ala Thr 255 260 265	877
gtt aca gag atg ctg aag gcc att gag gac tta tcc aaa caa gac aaa Val Thr Glu Met Leu Lys Ala Ile Glu Asp Leu Ser Lys Gln Asp Lys 270 275 280 285	925
gat tct gcc cac ggt gga ccg agt tcc acg acg tgg cct gtg cgg ggc Asp Ser Ala His Gly Gly Pro Ser Ser Thr Thr Trp Pro Val Arg Gly 290 295 300	973
aga ggg ctg tgt gga gaa cct ggc cag aac tcg tcc gaa tgt ctc caa Arg Gly Leu Cys Gly Glu Pro Gly Gln Asn Ser Ser Glu Cys Leu Gln 305 310 315	1021
ttt cat gca aga tgc cag aaa tgt cag gat tac cta tgg gca gac tgc Phe His Ala Arg Cys Gln Lys Cys Gln Asp Tyr Leu Trp Ala Asp Cys 320 325 330	1069
cct gct gtt cct gaa cta tac aca aag gcg gat gag gcc ctt gag ttg Pro Ala Val Pro Glu Leu Tyr Thr Lys Ala Asp Glu Ala Leu Glu Leu 335 340 345	1117
gtc aac ata tcc aat cag cag tat gcc cag gta ctc cag atg acc cag Val Asn Ile Ser Asn Gln Gln Tyr Ala Gln Val Leu Gln Met Thr Gln 350 355 360 365	1165
cat cac ttg gag gac acc acg tat ctg atg gag aag atg aga gag cag His His Leu Glu Asp Thr Tyr Leu Met Glu Lys Met Arg Glu Gln 370 375 380	1213
ttt ggt tgg gta aca gag ctg gcc agc cag acc cca gga agc gag aac Phe Gly Trp Val Thr Glu Leu Ala Ser Gln Thr Pro Gly Ser Glu Asn 385 390 395	1261
atc ttc agt ttc ata aag gta gtt cca ggt gtt cac gaa gga aat ttc Ile Phe Ser Phe Ile Lys Val Val Pro Gly Val His Glu Gly Asn Phe 400 405 410	1309
tcc aaa caa gat gaa aag atg ata gac ata agc att ctg cct tcc tct Ser Lys Gln Asp Glu Lys Met Ile Asp Ile Ser Ile Leu Pro Ser Ser 415 420 425	1357
aat ttc aca ctc acc atc cct ctt gaa gaa agt gct gag agt tcc gac Asn Phe Thr Leu Thr Ile Pro Leu Glu Ser Ala Glu Ser Ser Asp 430 435 440 445	1405
ttc att agc tac atg ctg gcc aaa gct gta cag cat ttt aag gaa cat Phe Ile Ser Tyr Met Leu Ala Lys Ala Val Gln His Phe Lys Glu His 450 455 460	1453
ttt aaa tct tgg taagcagagt atttgatttag ggacgtttgc tgataggaat Phe Lys Ser Trp 465	1505
agatggttct taaaaggaa aatgacaaa actagcttt gaatacctt gaaacgtatt caacctcatt aataatcaaa ggcataaaaa ctaagacaag ttagcagttt ttacctattt aattttcaaa taaaaaaaaa aatcctgata gaatgcaatg aatgagaat tcttatatgt	1565 1625 1685

gattgccaga aacaaactgg tttgtctt ttgaaaagtt attcaattat acatatcaag	1745
agtcatcaaa ttctttta atataataat tccacttctg gaatcaatcc aaaggagtaa	1805
atctaaaatt gaattgaagt tcccaccca agatcaatat ttgcaaatta tttaaaatag	1865
taaactgtta aaaactgaat gtcatctgaa tgtctaaaaa ccagaaatgg ttaaaagctg	1925
tggctaaata tgctccaaat atcttataaa accattaaaa atatttataa aatttaatc	1985
atgacatgac atctgtgga acaagagttt attctaagcc tatctataag gcaaataat	2045
ttattactat ctccagaaa agaaacttga gactcagggt ccaagtgtt gttgctcagt	2105
catgtctgac tctttgagac cccttggact gtagcccacc aggctccctc gtccatggga	2165
ttcttcagac aagaatactg gaggcagggtg ctatttcctt ctccaggaaa tcttcctat	2225
ccagggatgg aaccaggc tcctgcattt caggttagatg cttaactatc tgagcaacca	2285
aatgaattac tcaagtcaatg agggggtaga ggcaatttt aacttagtt tctctgaatc	2345
ataattgccca cattaaactg gttcctgtt ggcacattgg ttgaaaaaaaaaa taaagtgaaa	2405
aatgagttata aaactctata aatgtatga tcaaaacgaa aaaaaatcta caatctgcat	2465
taaaaataaa aagggttggc agg	2488

<210> 49
 <211> 465
 <212> PRT
 <213> Bos sp.

<400> 49
Met Lys Pro Pro Ile Leu Val Phe Ile Val Tyr Leu Leu Gln Leu Arg
1 5 10 15
Asp Cys Gln Cys Ala Pro Thr Gly Lys Asp Arg Thr Ser Ile Arg Glu
20 25 30
Asp Pro Lys Gly Phe Ser Lys Ala Gly Glu Ile Asp Val Asp Glu Glu
35 40 45
Val Lys Lys Ala Leu Ile Gly Met Lys Gln Met Lys Ile Leu Met Glu
50 55 60
Arg Arg Glu Glu Glu His Ser Lys Leu Met Arg Thr Leu Lys Lys Cys
65 70 75 80
Arg Glu Glu Lys Gln Glu Ala Leu Lys Leu Met Asn Glu Val Gln Glu
85 90 95
His Leu Glu Glu Glu Glu Arg Leu Cys Gln Val Ser Leu Met Gly Ser
100 105 110
Trp Asp Glu Cys Lys Ser Cys Leu Glu Ser Asp Cys Met Arg Phe Tyr
115 120 125
Thr Thr Cys Gln Ser Ser Trp Ser Ser Met Lys Ser Thr Ile Glu Arg
130 135 140
Val Phe Arg Lys Ile Tyr Gln Phe Leu Phe Pro Phe His Glu Asp Asp
145 150 155 160
Glu Lys Glu Leu Pro Val Gly Glu Lys Phe Thr Glu Glu Asp Val Gln
165 170 175
Leu Met Gln Ile Glu Asn Val Phe Ser Gln Leu Thr Val Asp Val Gly
180 185 190
Phe Leu Tyr Asn Met Ser Phe His Val Phe Lys Gln Met Gln Gln Glu
195 200 205
Phe Asp Leu Ala Phe Gln Ser Tyr Phe Met Ser Asp Thr Asp Ser Met
210 215 220
Glu Pro Tyr Phe Phe Pro Ala Phe Ser Lys Glu Pro Ala Lys Lys Ala
225 230 235 240
His Pro Met Gln Ser Trp Asp Ile Pro Ser Phe Phe Gln Leu Phe Cys
245 250 255
Asn Phe Ser Leu Ser Val Tyr Gln Ser Val Ser Ala Thr Val Thr Glu
260 265 270
Met Leu Lys Ala Ile Glu Asp Leu Ser Lys Gln Asp Lys Asp Ser Ala
275 280 285
His Gly Gly Pro Ser Ser Thr Thr Trp Pro Val Arg Gly Arg Gly Leu
290 295 300
Cys Gly Glu Pro Gly Gln Asn Ser Ser Glu Cys Leu Gln Phe His Ala
305 310 315 320
Arg Cys Gln Lys Cys Gln Asp Tyr Leu Trp Ala Asp Cys Pro Ala Val

325	330	335
Pro Glu Leu Tyr Thr Lys Ala Asp Glu	Ala Leu Glu Leu Val Asn Ile	
340	345	350
Ser Asn Gln Gln Tyr Ala Gln Val	Leu Gln Met Thr Gln His His Leu	
355	360	365
Glu Asp Thr Thr Tyr Leu Met Glu Lys Met Arg Glu Gln Phe Gly Trp		
370	375	380
Val Thr Glu Leu Ala Ser Gln Thr Pro Gly Ser Glu Asn Ile Phe Ser		
385	390	395
Phe Ile Lys Val Val Pro Gly Val His Glu Gly Asn Phe Ser Lys Gln		
405	410	415
Asp Glu Lys Met Ile Asp Ile Ser Ile Leu Pro Ser Ser Asn Phe Thr		
420	425	430
Leu Thr Ile Pro Leu Glu Glu Ser Ala Glu Ser Ser Asp Phe Ile Ser		
435	440	445
Tyr Met Leu Ala Lys Ala Val Gln His Phe Lys Glu His Phe Lys Ser		
450	455	460

Trp
465

<210> 50
<211> 8
<212> PRT
<213> Homo sapiens

<400> 50
Asp Tyr Lys Asp Asp Asp Asp Lys
1 5

<210> 51
<211> 446
<212> PRT
<213> Homo sapiens

<400> 51
Ala Pro Thr Trp Lys Asp Lys Thr Ala Ile Ser Glu Asn Leu Lys Ser
1 5 10 15
Phe Ser Glu Val Gly Glu Ile Asp Ala Asp Glu Glu Val Lys Lys Ala
20 25 30
Leu Thr Gly Ile Lys Gln Met Lys Ile Met Met Glu Arg Lys Glu Lys
35 40 45
Glu His Thr Asn Leu Met Ser Thr Leu Lys Lys Cys Arg Glu Glu Lys
50 55 60
Gln Glu Ala Leu Lys Leu Leu Asn Glu Val Gln Glu His Leu Glu Glu
65 70 75 80
Glu Glu Arg Leu Cys Arg Glu Ser Leu Ala Asp Ser Trp Gly Glu Cys
85 90 95
Arg Ser Cys Leu Glu Asn Asn Cys Met Arg Ile Tyr Thr Thr Cys Gln
100 105 110
Pro Ser Trp Ser Ser Val Lys Asn Lys Ile Glu Arg Phe Phe Arg Lys
115 120 125
Ile Tyr Gln Phe Leu Phe Pro Phe His Glu Asp Asn Glu Lys Asp Leu
130 135 140
Pro Ile Ser Glu Lys Leu Ile Glu Glu Asp Ala Gln Leu Thr Gln Met
145 150 155 160
Glu Asp Val Phe Ser Gln Leu Thr Val Asp Val Asn Ser Leu Phe Asn
165 170 175
Arg Ser Phe Asn Val Phe Arg Gln Met Gln Gln Glu Phe Asp Gln Thr
180 185 190
Phe Gln Ser His Phe Ile Ser Asp Thr Asp Leu Thr Glu Pro Tyr Phe
195 200 205
Phe Pro Ala Phe Ser Lys Glu Pro Met Thr Lys Ala Asp Leu Glu Gln

210	215	220
Cys Trp Asp Ile Pro Asn Phe Phe Gln Leu Phe	Cys Asn Phe Ser Val	
225	230	240
Ser Ile Tyr Glu Ser Val Ser Glu Thr Ile Thr Lys Met Leu Lys Ala		
245	250	255
Ile Glu Asp Leu Pro Lys Gln Asp Lys Ala Pro Asp His Gly Gly Leu		
260	265	270
Ile Ser Lys Met Leu Pro Gly Gln Asp Arg Gly Leu Cys Gly Glu Leu		
275	280	285
Asp Gln Asn Leu Ser Arg Cys Phe Lys Phe His Glu Lys Cys Gln Lys		
290	295	300
Cys Gln Ala His Leu Ser Glu Asp Cys Pro Asp Val Pro Ala Leu His		
305	310	315
Thr Glu Leu Asp Glu Ala Ile Arg Leu Val Asn Val Ser Asn Gln Gln		
325	330	335
Tyr Gly Gln Ile Leu Gln Met Thr Arg Lys His Leu Glu Asp Thr Ala		
340	345	350
Tyr Leu Val Glu Lys Met Arg Gly Gln Phe Gly Trp Val Ser Glu Leu		
355	360	365
Ala Asn Gln Ala Pro Glu Thr Glu Ile Ile Phe Asn Ser Ile Gln Val		
370	375	380
Val Pro Arg Ile His Glu Gly Asn Ile Ser Lys Gln Asp Glu Thr Met		
385	390	395
Met Thr Asp Leu Ser Ile Leu Pro Ser Ser Asn Phe Thr Leu Lys Ile		
405	410	415
Pro Leu Glu Glu Ser Ala Glu Ser Ser Asn Phe Ile Gly Tyr Val Val		
420	425	430
Ala Lys Ala Leu Gln His Phe Lys Glu His Phe Lys Thr Trp		
435	440	445

<210> 52

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 52

tttttctgaa ttcgccccca tgaaaattaa agcagagaaaa aacg

44

<210> 53

<211> 69

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 53

tttttgcga cttatcactt gtcgtcggtcg tcctttagt cccaggtttt aaaatgttcc
ttaaaatgc

60

69

<210> 54

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 54

ttttctgaa ttcaccatga ggacctggga ctacagtaac	40
<210> 55	
<211> 41	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 55	
ttttctctc gagaccatga aaattaaagc agagaaaaac g	41
<210> 56	
<211> 47	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 56	
ttttggatc cgctgctgcc caggtttaa aatgttcctt aaaatgc	47
<210> 57	
<211> 40	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 57	
ttttctctc gagaccatga ggacctggga ctacagtaac	40
<210> 58	
<211> 37	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 58	
ttttctgaa ttcaccatga agccgccact cttggtg	37
<210> 59	
<211> 60	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 59	
ttttggatc cgctcgcc tccgtggta ggagcttatt tttcacagag gaccagctag	60
<210> 60	
<211> 36	
<212> DNA	

<213> Artificial Sequence

<220>

<223> Primer

<400> 60

tttttctctc gaggactaca ggacacagct aaatcc

36

<210> 61

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 61

tttttggatc cttatcacca ggttttaaaa tggcccttaa aatgc

45

<210> 62

<211> 37

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 62

tttttctgaa ttcaccatga agccgccact cttggtg

37

<210> 63

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 63

tttttctctc gagaccatga ggacctggga ctacagtaac

40

<210> 64

<211> 466

<212> PRT

<213> Homo sapiens

<400> 64

Met Lys Pro Pro Leu Leu Val Phe Ile Val Cys Leu Leu Trp Leu Lys
1 5 10 15

Asp Ser His Cys Ala Pro Thr Trp Lys Asp Lys Thr Ala Ile Ser Glu
20 25 30

Asn Leu Lys Ser Phe Ser Glu Val Gly Glu Ile Asp Ala Asp Glu Glu
35 40 45

Val Lys Lys Ala Leu Thr Gly Ile Lys Gln Met Lys Ile Met Met Glu
50 55 60

Arg Lys Glu Lys Glu His Thr Asn Leu Met Ser Thr Leu Lys Lys Cys
65 70 75 80

Arg Glu Glu Lys Gln Glu Ala Leu Lys Leu Asn Glu Val Gln Glu
85 90 95

His Leu Glu Glu Glu Glu Arg Leu Cys Arg Glu Ser Leu Ala Asp Ser
100 105 110

Trp Gly Glu Cys Arg Ser Cys Leu Glu Asn Asn Cys Met Arg Ile Tyr

115	120	125	
Thr Thr Cys Gln Pro Ser Trp Ser Ser Val Lys Asn Lys	Ile Glu Arg		
130	135	140	
Phe Phe Arg Lys Ile Tyr Gln Phe Leu Phe Pro Phe His Glu Asp Asn			
145	150	155	160
Glu Lys Asp Leu Pro Ile Ser Glu Lys Leu Ile Glu Glu Asp Ala Gln			
165	170	175	
Leu Thr Gln Met Glu Asp Val Phe Ser Gln Leu Thr Val Asp Val Asn			
180	185	190	
Ser Leu Phe Asn Arg Ser Phe Asn Val Phe Arg Gln Met Gln Gln Glu			
195	200	205	
Phe Asp Gln Thr Phe Gln Ser His Phe Ile Ser Asp Thr Asp Leu Thr			
210	215	220	
Glu Pro Tyr Phe Phe Pro Ala Phe Ser Lys Glu Pro Met Thr Lys Ala			
225	230	235	240
Asp Leu Glu Gln Cys Trp Asp Ile Pro Asn Phe Phe Gln Leu Phe Cys			
245	250	255	
Asn Phe Ser Val Ser Ile Tyr Glu Ser Val Ser Glu Thr Ile Thr Lys			
260	265	270	
Met Leu Lys Ala Ile Glu Asp Leu Pro Lys Gln Asp Lys Ala Pro Asp			
275	280	285	
His Gly Gly Leu Ile Ser Lys Met Leu Pro Gly Gln Asp Arg Gly Leu			
290	295	300	
Cys Gly Glu Leu Asp Gln Asn Leu Ser Arg Cys Phe Lys Phe His Glu			
305	310	315	320
Lys Cys Gln Lys Cys Gln Ala His Leu Ser Glu Asp Cys Pro Asp Val			
325	330	335	
Pro Ala Leu His Thr Glu Leu Asp Glu Ala Ile Arg Leu Val Asn Val			
340	345	350	
Ser Asn Gln Gln Tyr Gly Gln Ile Leu Gln Met Thr Arg Lys His Leu			
355	360	365	
Glu Asp Thr Ala Tyr Leu Val Glu Lys Met Arg Gly Gln Phe Gly Trp			
370	375	380	
Val Ser Glu Leu Ala Asn Gln Ala Pro Glu Thr Glu Ile Ile Phe Asn			
385	390	395	400
Ser Ile Gln Val Val Pro Arg Ile His Glu Gly Asn Ile Ser Lys Gln			
405	410	415	
Asp Glu Thr Met Met Thr Asp Leu Ser Ile Leu Pro Ser Ser Asn Phe			
420	425	430	
Thr Leu Lys Ile Pro Leu Glu Glu Ser Ala Glu Ser Ser Asn Phe Ile			
435	440	445	
Gly Tyr Val Val Ala Lys Ala Leu Gln His Phe Lys Glu His Phe Lys			
450	455	460	
Thr Trp			
465			

<210> 65
<211> 1607
<212> DNA
<213> H. sapiens

<220>
<221> misc_feature
<222> (1)...(1607)
<223> N = A, T, C, or G

<400> 65
tgcgtcacct gcaggccccg gccgcggggt tggttccac cctggaggtt gctgacaccc 60
tgtgccctcg gctgacttcc agccgggtgc acagacgcct ccagggggca gcactcaagc 120
gcatcttagg aatgacagag ttgcgtccct ctctgttgcc aggctggagt tcagtggcat 180
gttcttagct cactgaagcc tcaaattcct gggtaaagt gaccctccca cctcagcccc 240

atgaggacct gggactacag gacacagcta aatccctgac acggatgaaa attaaagcag 300
agaaaaacga aggtccttcc agaagctgtt ggcaacttca ctggggagat attgcaaata 360
acagcggaa catgaagccg ccactcttgg ttttattgt gtgtctgctg tggtaaag 420
acagtcactg cgacccact tggaggaca aaactgctat cagtaaaac ctgaagagtt 480
tttctgaggt gggggagata gatgcagatg aagaggtgaa gaaggcttg actggtatta 540
agcaaatgaa aatcatgatg gaaagaaaag agaaggaaca caccatcta atgagcaccc 600
tgaagaaaatg cagagaagaa aagcaggagg ccctgaaact tctgaatgaa gttcaagaac 660
atctggagga agaagaaagg ctatgccgg agtcttggc agattcctgg ggtgaatgca 720
ggtcttcctt ggaaaataac tgcatgaga ttatacaac ctgccaacct agctggcct 780
ctgtgaaaaa taagctcctg accacggagg cctgattca aagatgtac ntggcagga 840
cagaggactg tggggaaac ttgaccagaa ttgtcaaga ttttcaaat ttcatgaaaa 900
atgcaaaaaa tgcaggctc acctatctg agactgtcct gatgtacctg ctctgcacac 960
agaattagac gaggcgtca gttggtcaa tgtatccat cagcagtatg gccagattct 1020
ccagatgacc cgaaagcact tggaggacac ccctatctg gtggagaaga tgagagggca 1080
atttggctgg gtgtctgaac tggcaaaccg gccccagaa acagcaatac aggtagttcc 1140
aaggattcat gaagggaaaata ttccaaaca agatgaaaca atgatgacag acttaagcat 1200
tctgccttc tctaatttca cactcaagat cccttggaa gaaagtgtc agagttctaa 1260
cttcattggc tacgtagtgg caaaagctt acagcattt aaggaacatt taaaacctg 1320
gtaagaagat ctaatgcattt ctatatccag taagtagaat tatcttca tctgggacct 1380
ggaaatccctg aaataaaaaaa ggataatgca ataaacacag ttgcaggaaa gtatgttagc 1440
tatatactat gaagtactt tagtttactt atgttgaatg gcttagctat taatactcaa 1500
attgagttaa aatgaaaatt ctccttaaa aaatcaaacg taatatgtat tacatttcat 1560
ggtacattag tagtttttgc tatattgaat aaatactaaa tcaccta 1607

<210> 66

<211> 521

<212> PRT

<213> Homo sapiens

<400> 66

Arg	His	Leu	Gln	Ala	Arg	Ala	Ala	Gly	Leu	Val	Ser	Thr	Leu	Glu	Val
1															
														15	
Ala	Asp	Thr	Leu	Cys	Pro	Arg	Leu	Thr	Ser	Ser	Arg	Trp	His	Arg	Arg
20															
Leu	Gln	Gly	Ala	Ala	Leu	Lys	Arg	Ile	Leu	Gly	Met	Thr	Glu	Leu	Arg
35															
35															
Pro	Ser	Leu	Leu	Pro	Gly	Trp	Ser	Ser	Val	Ala	Cys	Ser	Leu	Thr	Glu
50															
Ala	Ser	Asn	Ser	Trp	Val	Gln	Val	Thr	Leu	Pro	Pro	Gln	Pro	His	Glu
65															
Asp	Leu	Gly	Leu	Gln	Asp	Thr	Ala	Lys	Ser	Leu	Thr	Arg	Met	Lys	Ile
85															
Lys	Ala	Glu	Lys	Asn	Glu	Gly	Pro	Ser	Arg	Ser	Trp	Trp	Gln	Leu	His
100															
Trp	Gly	Asp	Ile	Ala	Asn	Asn	Ser	Gly	Asn	Met	Lys	Pro	Pro	Leu	Leu
115															
Val	Phe	Ile	Val	Cys	Leu	Leu	Trp	Leu	Lys	Asp	Ser	His	Cys	Ala	Pro
130															
Thr	Trp	Lys	Asp	Lys	Thr	Ala	Ile	Ser	Glu	Asn	Leu	Lys	Ser	Phe	Ser
145															
Glu	Val	Gly	Glu	Ile	Asp	Ala	Asp	Glu	Glu	Val	Lys	Lys	Ala	Leu	Thr
165															
Gly	Ile	Lys	Gln	Met	Lys	Ile	Met	Met	Glu	Arg	Lys	Glu	Lys	Glu	His
180															
Thr	Asn	Leu	Met	Ser	Thr	Leu	Lys	Lys	Cys	Arg	Glu	Glu	Lys	Gln	Glu
195															
Ala	Leu	Lys	Leu	Leu	Asn	Glu	Val	Gln	Glu	His	Leu	Glu	Glu	Glu	Glu
210															
Arg	Leu	Cys	Arg	Glu	Ser	Leu	Ala	Asp	Ser	Trp	Gly	Glu	Cys	Arg	Ser
225															
Cys	Leu	Glu	Asn	Asn	Cys	Met	Arg	Ile	Tyr	Thr	Thr	Cys	Gln	Pro	Ser
245															

Trp	Ser	Ser	Val	Lys	Asn	Lys	Leu	Leu	Thr	Thr	Glu	Ala	Phe	Gln	Arg
260							265				270				
Cys	Tyr	Leu	Gly	Arg	Thr	Glu	Asp	Cys	Val	Gly	Asn	Leu	Thr	Arg	Ile
275							280				285				
Cys	Gln	Asp	Val	Ser	Asn	Phe	Met	Lys	Asn	Ala	Lys	Asn	Val	Arg	Leu
290							295				300				
Thr	Tyr	Leu	Lys	Thr	Val	Leu	Met	Tyr	Leu	Leu	Cys	Thr	Gln	Asn	Thr
305							310				315			320	
Arg	Arg	Ser	Gly	Trp	Ser	Met	Tyr	Pro	Ile	Ser	Ser	Met	Ala	Arg	Phe
							325				330			335	
Ser	Arg	Pro	Gly	Ser	Thr	Trp	Arg	Thr	Pro	Pro	Ile	Trp	Trp	Arg	Arg
							340				345			350	
Glu	Gly	Asn	Leu	Ala	Gly	Cys	Leu	Asn	Trp	Gln	Thr	Arg	Pro	Gln	Lys
							355				360			365	
Gln	Arg	Ser	Ser	Leu	Ile	Gln	Tyr	Arg	Phe	Gln	Gly	Phe	Met	Lys	Glu
							370				375			380	
Ile	Phe	Pro	Asn	Lys	Met	Lys	Gln	Gln	Thr	Ala	Phe	Cys	Leu	Pro	Leu
							385				390			395	
Ile	Ser	His	Ser	Arg	Ser	Leu	Leu	Lys	Lys	Val	Leu	Arg	Val	Leu	Thr
							405				410			415	
Ser	Leu	Ala	Thr	Trp	Gln	Lys	Leu	Tyr	Ser	Ile	Leu	Arg	Asn	Ile	Leu
							420				425			430	
Lys	Pro	Gly	Lys	Lys	Ile	Cys	Ile	Leu	Tyr	Pro	Val	Ser	Arg	Ile	Ile
							435				440			445	
Ser	Ser	Ser	Gly	Thr	Trp	Lys	Ser	Asn	Lys	Lys	Gly	Cys	Asn	Lys	His
							450				455			460	
Ser	Cys	Arg	Lys	Val	Cys	Leu	Tyr	Thr	Met	Lys	Tyr	Ser	Phe	Thr	Tyr
							465				470			475	
Val	Glu	Trp	Leu	Ser	Tyr	Tyr	Ser	Asn	Val	Lys	Met	Lys	Ile	Pro	Pro
							485				490			495	
Lys	Ile	Lys	Arg	Asn	Met	Tyr	Tyr	Ile	Ser	Trp	Tyr	Ile	Ser	Ser	Ser
							500				505			510	
Leu	Tyr	Ile	Glu	Ile	Leu	Asn	His	Leu							
							515				520				

<210> 67

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 67

agttgcgtcc ctctctgttg 20

<210> 68

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 68

gcttcatgtt cccgctgtta 20

<210> 69

<211> 26

<212> DNA

<213> Artificial Sequence

<220>		
<223> Primer		
<400> 69		
acgcccgcggg cccctgcggg acgggt		26
<210> 70		
<211> 27		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 70		
ccatcctaat acgactcact atagggc		27
<210> 71		
<211> 26		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 71		
ggagccgctg ggacgcggct tacctc		26
<210> 72		
<211> 27		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 72		
ccatcctaat acgactcact atagggc		27
<210> 73		
<211> 564		
<212> DNA		
<213> Homo sapiens		
<220>		
<221> misc_feature		
<222> (1)...(564)		
<223> n = A,T,C or G		
<400> 73		
ggtgtctatg ttctatcaca tctacaaaca tgtcaattcc taattaacaa aatgttcttc		60
cttttagtttgcact taaaatataat ataattgact tttttggaaa aaaatctaag		120
attcattgtttgttgcata aagaccaata ggttctgtat agtcttttt taaattgtgg		180
taaaaatacac atggcattaa ttaccattt taaccatttt aaagtgcaca atttgtggca		240
ttaagtacac tcacgttgcgt gtgcaaccat caccaccgtc catcttcaga accttttat		300
cttcctaaac tgaaactctg tactcgtaa gcactcaattt ccctttccc catccccca		360
cccgtagcaa ccacgactgt actttctatg aatttgacta ctctaggtagc tgcatgtagg		420
tggaaatcata cagtatttgcgtt ntttgntttg tttttgttt tctaaagacag		480
ggtctcactc tgtcgcctca gctggattgc agagttaaat ttatgattat gaaataaaaa		540
ctaaataacn attgtcctcg ttgc		564
<210> 74		

<211> 1161
<212> DNA
<213> Homo sapiens

<400> 74

cctgaaagcc	tggcccaat	gaccgcgag	acattttg	cctgggtgc	tcctgtcgga	60
aaggaaagag	gaaaggacga	ctaagaactt	atactcgaac	tcccgaattt	ctctttcaa	120
ggttaagag	gaaagctgt	tcgtgggat	tggatggag	gccaccagga	aaccaagttc	180
ccgcgccagc	ttcagtgctc	tcctcttycc	gccgccttgc	ccccgcccac	atcaacttcg	240
ctccagttt	tgaaaacgct	gccaagcgg	atggccaca	ggggaaaacg	gaggagggc	300
caaagccagg	acttgagac	ccgcgcgcgg	tcaagcccag	gcagctctcc	ctaaccctcc	360
agcactgggc	aaacgctgcc	cgatgacgcc	cgcctcgggg	gccacggcat	cactggggcg	420
actgcgagcc	cggccgcgga	gccgctggga	cgcgcgttac	ctcccgctg	tcgctgtgt	480
gtgtgttgc	cgcgcagtc	acgtccctaa	tggaccctc	cgttcggcg	tctgtaaggc	540
gaggaggacg	atgcgtcccc	tccctsgcag	gattgagggt	aggactaaac	gggtccgca	600
gcgcggcga	gctcccgagc	gctctccca	gccgcgcctc	cctccttccc	gccaccgc	660
ccgcaggggc	ccgcgcgcgtc	acctctcagg	ctgtacgcg	cctgcatgcc	gaataccgac	720
agggtgccgg	tgcccgtgcg	gtcgtccttc	ctgacgcgc	agcggagagat	gtgtggatc	780
tgcgtccagga	tttccaggtc	ccagatgaag	agataattct	acttactgga	tataggatgc	840
attagatctt	tttaccttaa	aaaaaaaaaa	aaagcagca	atgatcaaaa	tactaataaa	900
ttactcacag	actcagtgt	tttttcttgc	gagtaaaagt	ccaggatggg	taatagaata	960
cctgctgttg	gttttggaa	aaattggta	tgtatgttagc	aaaataatgt	gaaaccata	1020
tgcgtccatggata	ttcttaacaa	tttgaagaaa	tcgtcacagc	tttccctgggt	tgttgagcct	1080
ctaaaatggt	cttttctct	gatgtgataa	taaagtgttt	atttgaact	caaaaaaaaaa	1140
aaaaaaaaaa	aaaaaaaaaa	a				1161

<210> 75
<211> 123
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> (1)...(123)
<223> Xaa = Any Amino Acid

<400> 75

Met	Thr	Pro	Ala	Ser	Gly	Ala	Thr	Ala	Ser	Leu	Gly	Arg	Leu	Arg	Ala
1															15
Arg	Pro	Arg	Ser	Arg	Trp	Asp	Ala	Ala	Tyr	Leu	Pro	Ala	Val	Ala	Ala
															30
Val	Cys	Val	Ala	Arg	Ala	Ser	His	Val	Pro	Asn	Gly	Thr	Leu	Arg	Phe
															45
Gly	Val	Cys	Lys	Ala	Arg	Arg	Thr	Met	Arg	Pro	Leu	Pro	Xaa	Arg	Ile
															60
Glu	Val	Arg	Thr	Lys	Arg	Gly	Pro	Gln	Arg	Pro	Ala	Ala	Pro	Glu	Arg
															80
Ser	Pro	Gln	Pro	Arg	Leu	Pro	Pro	Ser	Arg	His	Pro	Ser	Arg	Arg	Gly
															95
Pro	Arg	Arg	His	Leu	Ser	Gly	Cys	Ser	Ala	Pro	Ala	Cys	Arg	Ile	Pro
															110
Thr	Gly	Cys	Arg	Cys	Pro	Cys	Gly	Arg	Pro	Ser					
115															120

<210> 76
<211> 105
<212> PRT
<213> Homo sapiens

<400> 76

Met	Gly	Pro	Ser	Val	Ser	Ala	Ser	Val	Arg	Arg	Gly	Gly	Arg	Cys	Val
1															15

Pro Ser Leu Ala Gly Leu Arg Leu Gln Gly Val Arg Ser Ala Arg Gln
20 25 30
Leu Pro Ser Ala Leu Pro Ser Arg Ala Ser Leu Leu Pro Ala Trp Ala
35 40 45
Gly Arg Val Thr Ser Gln Ala Val Ala Arg Leu His Ala Glu Tyr Arg
50 55 60
Gln Gly Ala Gly Ala Arg Ala Val Val Leu Pro Asp Ala Ala Ala Glu
65 70 75 80
Asp Val Leu Asp Leu Pro Gln Asp Phe Gln Val Pro Asp Glu Glu Ile
85 90 95
Ile Leu Leu Thr Gly Tyr Arg Met His
100 105

<210> 77

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 77

aacggctgcc taacgtcctg t

21

<210> 78

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 78

ggagagctgc ctgggcttga

20

<210> 79

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 79

ttgaaaacgc tgcgaagcgg aat

23

<210> 80

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 80

cgctacagcc tgagaggtga

20

<210> 81

<211> 23

<212> DNA

<213> Artificial Sequence

<220>		
<223> Primer		
<400> 81		
aggattgagg ttaggactaa acg		23
<210> 82		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 82		
tggcgcacgc tctctagagc		20
<210> 83		
<211> 25		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 83		
ccattcaaca taagtaaact aagag		25
<210> 84		
<211> 22		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 84		
gcttttgtag atgggctttt ac		22
<210> 85		
<211> 24		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 85		
ggaacacacacc aatctaatga gcac		24
<210> 86		
<211> 28		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 86		
gttggcaggt tgtataaatt ctcatgca		28

<210> 87		
<211> 30		
<212> DNA		
<213> Homo sapiens		
<400> 87		
aggctatgcc gggagtcctt ggcagattcc		30
<210> 88		
<211> 19		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 88		
gaaggtgaag gtcggagtc		19
<210> 89		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 89		
gaagatggtg atgggatttc		20
<210> 90		
<211> 20		
<212> DNA		
<213> Homo sapiens		
<400> 90		
caagcttccc gttctcagcc		20
<210> 91		
<211> 25		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 91		
ctgagtgag aagatgagag aggca		25
<210> 92		
<211> 26		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 92		
tttaaaaagtg ctcccttaaa atgctg		26
<210> 93		
<211> 26		

<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 93		
tttaaaaagtg cttccttaaa gtgctg		26
<210> 94		
<211> 26		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 94		
gatgagagag gcaagtttgg ctgggt		26
<210> 95		
<211> 26		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 95		
gatgagagag gcaagtttgg ttgggt		26
<210> 96		
<211> 25		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 96		
gagtgtgaaa gtttagaggaa ggcag		25
<210> 97		
<211> 65		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 97		
cacaccagta gacccacaca gccaccatcg atgcggccgc ggatccattt tttttttttt		60
ttttt		65
<210> 98		
<211> 24		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		

<400> 98	
tgggtgtctc aactggcaag ccat	24
<210> 99	
<211> 24	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 99	
cacaccagta gaccacacaca gcca	24
<210> 100	
<211> 24	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 100	
cataacccag tgactgagga catc	24
<210> 101	
<211> 24	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 101	
accatcgatg cggccgcgga tcca	24
<210> 102	
<211> 29	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 102	
cagatctgct gcagcctcac agggaagga	29
<210> 103	
<211> 29	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 103	
cagatctgct gcagcctcac atggaagga	29
<210> 104	
<211> 29	
<212> DNA	

<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 104		
cagatctgct gcagcctcac ttggaagga		29
<210> 105		
<211> 29		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 105		
cagatctgct gcagcctcac ttggaagga		29
<210> 106		
<211> 24		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 106		
ctgcttggaa gaatctcctc catg		24
<210> 107		
<211> 45		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 107		
tgtaaaacga cggccagtgc ggcacgaggc acatcgtaaa aagtg		45
<210> 108		
<211> 42		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Primer		
<400> 108		
caggaaacag ctatgacccc taccctctca acaaagctt cc		42
<210> 109		
<211> 117		
<212> DNA		
<213> Rattus		
<400> 109		
gtctcaactg gcaagccata accagtgact gaggacatct ttaattcaac aaaggcagtt		60
ccaaagattc atggaggaga ttcttccaag caggatgaaa ttatgttata ctcaagc		117

<210> 110
<211> 39
<212> PRT
<213> Rattus

<400> 110
Ser Gln Leu Ala Ser His Asn Pro Val Thr Glu Asp Ile Phe Asn Ser
1 5 10 15
Thr Lys Ala Val Pro Lys Ile His Gly Gly Asp Ser Ser Lys Gln Asp
20 25 30
Glu Ile Met Val Asp Ser Ser
35

<210> 111
<211> 289
<212> DNA
<213> Rattus

<400> 111
cataacccag tgactgagga catcttaat tcaacaaagg cagttccaaa gattcatgga 60
ggagattctt ccaagcagga tgaattatgt gtagactcaa gcagcattct gccttcctct 120
aacttcaccc tccagaatcc tcctgaagaa ggtgctgaga gctcaaatgt tatttactac 180
atggcagcta aagttctgca gcatctaaag ggatgtttt aaacttgta agaatacg 240
attaggaaag ctttggtaggta acataaaaaa aaaaaaaaa 289

<210> 112
<211> 92
<212> PRT
<213> Rattus

<400> 112
His Asn Pro Val Thr Glu Asp Ile Phe Asn Ser Thr Lys Ala Val Pro
1 5 10 15
Lys Ile His Gly Gly Asp Ser Ser Lys Gln Asp Glu Ile Met Val Asp
20 25 30
Ser Ser Ser Ile Leu Pro Ser Ser Asn Phe Thr Val Gln Asn Pro Pro
35 40 45
Glu Glu Gly Ala Glu Ser Ser Asn Val Ile Tyr Tyr Met Ala Ala Lys
50 55 60
Val Leu Gln His Leu Lys Gly Cys Phe Glu Thr Trp Glu Leu Ile Arg
65 70 75 80
Lys Ala Leu Leu Arg Gly Val Thr Lys Lys Lys
85 90

<210> 113
<211> 1120
<212> DNA
<213> Rattus

<400> 113
cccttcactg cgcgccact gggaggaga cagatgtac ggatggaaac ctaaagagtc 60
ttccagaggt aggaggaggca gatgttaggg gagaggtaa gaaggcttg attggcatta 120
agcaaatgaa aatcatgtat gaaaggaggg aggaggaaaca cgcaaaattt atgaaagcct 180
tgaagaagtg caaagaagaa aagcaggagg cccagaaact catgaacgaa gtgcaagaac 240
gtctggagga agaagaaaag ctatgtcagg catcttctat aggttcttgg gatggatgca 300
ggccatgttt ggaaagtaac tgcatacgtat ttatatacgt ttgccaacct ggttggcct 360
ctgtgaaaag catgtgaag caatttctca agaagatata ccgatttctg tcttcccaga 420
gtgaagatgt aaaggatccc cctgccatag aacagctgac taaggaagat ttacaagtgg 480
tacacataga gaacctgttt agccagctgg ccgtggatgc aaaatctctc ttcaacatga 540
gctttacat tttaaagcag atgcagcaag aatttgcata ggctttcaa ttatacttca 600
tgtccgatgt ggacttaatg gagccatacc cccagctt atctaaagag ataatcaaaa 660
aagaagaact tggcaaaagg tggggcattc ccaatgtctt ccagctgttt cataattca 720

gtctctctgt ttatgggaga gtccaaacaaa taataatgaa gacactcaat gcaattgaag	780
attcatggga accacacaaa gagttagacc agagaggtat gacttcagag atgttacctg	840
agcaaaatgg agaaatgtgt gaggaatttg tcaagaattt atctggatgt taaaatttc	900
gtaaaagatg ccaaaaatgt cacaattacc tatctgaaga atgccctgat gtacctgaac	960
ttcacataga attcctttag gcccgtaaat tagtcaatgt atccaatcag caatatgatc	1020
agattgtcca gatgaccctg tatcatttg aagataccat atacctgatg gagaaaatgc	1080
aagagcgtt tggatgggtg tctcaactgg caagccataa	1120

<210> 114
<211> 397
<212> PRT
<213> Rattus

<400> 114	
Leu His Cys Ala Pro Thr Gly Lys Glu Thr Asp Ala Thr Asp Gly Asn	
1 5 10 15	
Leu Lys Ser Leu Pro Glu Val Gly Glu Ala Asp Val Glu Gly Glu Val	
20 25 30	
Lys Lys Ala Leu Ile Gly Ile Lys Gln Met Lys Ile Met Met Glu Arg	
35 40 45	
Arg Glu Glu Glu His Ala Lys Leu Met Lys Ala Leu Lys Lys Cys Lys	
50 55 60	
Glu Glu Lys Gln Glu Ala Gln Lys Leu Met Asn Glu Val Gln Glu Arg	
65 70 75 80	
Leu Glu Glu Glu Lys Leu Cys Gln Ala Ser Ser Ile Gly Ser Trp	
85 90 95	
Asp Gly Cys Arg Pro Cys Leu Glu Ser Asn Cys Ile Arg Phe Tyr Thr	
100 105 110	
Ala Cys Gln Pro Gly Trp Ser Ser Val Lys Ser Met Met Lys Gln Phe	
115 120 125	
Leu Lys Lys Ile Tyr Arg Phe Leu Ser Ser Gln Ser Glu Asp Val Lys	
130 135 140	
Asp Pro Pro Ala Ile Glu Gln Leu Thr Lys Glu Asp Leu Gln Val Val	
145 150 155 160	
His Ile Glu Asn Leu Phe Ser Gln Leu Ala Val Asp Ala Lys Ser Leu	
165 170 175	
Phe Asn Met Ser Phe Tyr Ile Phe Lys Gln Met Gln Gln Glu Phe Asp	
180 185 190	
Gln Ala Phe Gln Leu Tyr Phe Met Ser Asp Val Asp Leu Met Glu Pro	
195 200 205	
Tyr Pro Pro Ala Leu Ser Lys Glu Ile Ile Lys Lys Glu Glu Leu Gly	
210 215 220	
Gln Arg Trp Gly Ile Pro Asn Val Phe Gln Leu Phe His Asn Phe Ser	
225 230 235 240	
Leu Ser Val Tyr Gly Arg Val Gln Gln Ile Ile Met Lys Thr Leu Asn	
245 250 255	
Ala Ile Glu Asp Ser Trp Glu Pro His Lys Glu Leu Asp Gln Arg Gly	
260 265 270	
Met Thr Ser Glu Met Leu Pro Glu Gln Asn Gly Glu Met Cys Glu Glu	
275 280 285	
Phe Val Lys Asn Leu Ser Gly Cys Leu Lys Phe Arg Lys Arg Cys Gln	
290 295 300	
Lys Cys His Asn Tyr Leu Ser Glu Glu Cys Pro Asp Val Pro Glu Leu	
305 310 315 320	
His Ile Glu Phe Leu Glu Ala Leu Lys Leu Val Asn Val Ser Asn Gln	
325 330 335	
Gln Tyr Asp Gln Ile Val Gln Met Thr Gln Tyr His Leu Glu Asp Thr	
340 345 350	
Ile Tyr Leu Met Glu Lys Met Gln Glu Gln Phe Gly Trp Val Ser Gln	
355 360 365	
Leu Ala Ser His Asn Pro Val Thr Glu Asp Ile Phe Asn Ser Thr Lys	
370 375 380	

Lys Ala Leu Lys Lys Lys Lys Lys
50 55

<210> 119
<211> 1545
<212> DNA
<213> Rattus

<400> 119

ggcaccgagg	cacatcgtaa	aaagtgaagg	tccttcaga	agtttagtgc	aatttctctg	60
gggagagctg	caatatcggt	ggaacactgg	accatgcagc	caccactctt	tgtgatttct	120
gtgtatctgt	tatggtaaaa	tattgtgaca	gtgcacctac	ttggaaggag	acagatgcta	180
cggatggaaa	cctaaagagt	cttccagagg	taggagaggc	agatgttagag	ggagaggtca	240
agaaggctt	gattggcatt	aagcaaatga	aaatcatgat	ggaaaggaga	gaggaggaac	300
acgaaaatt	gatgaaagcc	ttgaagaagt	gcaaagaaga	aaagcaggag	gcccgaaaac	360
tcatgaacga	agtcaagaa	cgtctggagg	aagaagaaaa	gctatgtcag	gcatcttcta	420
tagttctt	ggatggatgc	aggccatgtt	tggaaagtaa	ctgcatacga	tttatacag	480
cttgccaacc	tggtttgtcc	tctgtgaaa	gcatgatgaa	gcaatttctc	aagaagatata	540
accgatttct	gtctcccgag	agtgaagatg	taaaggatcc	ccctgcccata	gaacagctga	600
ctaaggaaga	tttacaagtg	gtacacatag	agaacctgtt	tagccagctg	gccgtggatg	660
caaatactct	cttcaacatg	agcttttaca	tttttaagca	gatgcagcaa	gaatttgatc	720
aggctttca	attatacttc	atgtccgatg	tggacttaat	ggagccatac	ccccagctt	780
tatctaaaga	gataatcaaa	aaagaagaac	ttggccaaag	gtggggcatt	cccaatgtct	840
tccagctgtt	tcataatttc	agtctctctg	tttatggag	agtccaacaa	ataataatga	900
agacactcaa	tgcaattgaa	gattcatggg	aaccacacaa	agagttagac	cagagaggt	960
tgacttcaga	gatgttacct	gagcaaaatg	gagaaatgtg	tgaggaattt	gtcaagaatt	1020
tatctggatg	tttaaaaattt	cgtaaaagat	gccaaaatg	tcacaattac	ctatctgaag	1080
aatgccctga	tgtacctgaa	cttcacatag	aattcctga	ggccctgaaa	ttagtcaatg	1140
tatccaaatca	gcaatatgat	cagattgtcc	agatgaccca	gtatcatttgc	gaagatacca	1200
tatacctgat	ggagaaaatg	caagagcagt	ttggatgggt	gtctcaactg	gcaagccata	1260
acccagtgac	tgaggacatc	ttaattcaa	caaaggcagt	tccaaagatt	catggaggag	1320
attcttccaa	gcaggatgaa	attatggtag	actcaagcag	cattctgcct	tcctctaact	1380
tcaccgtcca	gaatcctcct	gaagaaggtg	ctgagagctc	aaatgttatt	tactacatgg	1440
cagctaaagt	tctgcagcat	ctaaaggat	gtttgaaac	ttggtaaagaa	tagctgatta	1500
ggaaagctt	gttgcagat	aaaaaaa	aaaaaaa	aaaaaaa	aaaaaaa	1545

<210> 120

<211> 512
<212> PRT
<213> Rattus

<400> 120

His	Arg	Gly	Thr	Ser	Glx	Lys	Val	Lys	Val	Leu	Ser	Glu	Val	Ser	Gly
1					5			10				15			
Asn	Phe	Ser	Gly	Glu	Ser	Cys	Asn	Ile	Gly	Gly	Thr	Leu	Asp	His	Ala
							20		25			30			
Ala	Thr	Thr	Leu	Cys	Asp	Phe	Cys	Val	Ser	Val	Met	Val	Lys	Tyr	Cys
							35		40			45			
Asp	Ser	Ala	Pro	Thr	Trp	Lys	Glu	Thr	Asp	Ala	Thr	Asp	Gly	Asn	Leu
						50		55			60				
Lys	Ser	Leu	Pro	Glu	Val	Gly	Glu	Ala	Asp	Val	Glu	Gly	Glu	Val	Lys
						65		70			75		80		
Lys	Ala	Leu	Ile	Gly	Ile	Lys	Gln	Met	Lys	Ile	Met	Met	Glu	Arg	Arg
						85				90			95		
Glu	Glu	Glu	His	Ala	Lys	Leu	Met	Lys	Ala	Leu	Lys	Lys	Cys	Lys	Glu
						100				105			110		
Glu	Lys	Gln	Glu	Ala	Gln	Lys	Leu	Met	Asn	Glu	Val	Gln	Glu	Arg	Leu
						115				120			125		
Glu	Glu	Glu	Glu	Lys	Leu	Cys	Gln	Ala	Ser	Ser	Ile	Gly	Ser	Trp	Asp
						130				135			140		
Gly	Cys	Arg	Pro	Cys	Leu	Glu	Ser	Asn	Cys	Ile	Arg	Phe	Tyr	Thr	Ala
						145				150			155		
															160

Cys	Gln	Pro	Gly	Trp	Ser	Ser	Val	Lys	Ser	Met	Met	Lys	Gln	Phe	Leu
				165				170				175			
Lys	Lys	Ile	Tyr	Arg	Phe	Leu	Ser	Ser	Gln	Ser	Glu	Asp	Val	Lys	Asp
				180				185			190				
Pro	Pro	Ala	Ile	Glu	Gln	Leu	Thr	Lys	Glu	Asp	Leu	Gln	Val	Val	His
				195				200			205				
Ile	Glu	Asn	Leu	Phe	Ser	Gln	Leu	Ala	Val	Asp	Ala	Lys	Ser	Leu	Phe
				210				215			220				
Asn	Met	Ser	Phe	Tyr	Ile	Phe	Lys	Gln	Met	Gln	Gln	Glu	Phe	Asp	Gln
				225				230			235			240	
Ala	Phe	Gln	Leu	Tyr	Phe	Met	Ser	Asp	Val	Asp	Leu	Met	Glu	Pro	Tyr
				245				250			255				
Pro	Pro	Ala	Leu	Ser	Lys	Glu	Ile	Ile	Lys	Lys	Glu	Glu	Leu	Gly	Gln
				260				265			270				
Arg	Trp	Gly	Ile	Pro	Asn	Val	Phe	Gln	Leu	Phe	His	Asn	Phe	Ser	Leu
				275				280			285				
Ser	Val	Tyr	Gly	Arg	Val	Gln	Gln	Ile	Ile	Met	Lys	Thr	Leu	Asn	Ala
				290				295			300				
Ile	Glu	Asp	Ser	Trp	Glu	Pro	His	Lys	Glu	Leu	Asp	Gln	Arg	Gly	Met
				305				310			315			320	
Thr	Ser	Glu	Met	Leu	Pro	Glu	Gln	Asn	Gly	Glu	Met	Cys	Glu	Glu	Phe
				325				330			335				
Val	Lys	Asn	Leu	Ser	Gly	Cys	Leu	Lys	Phe	Arg	Lys	Arg	Cys	Gln	Lys
				340				345			350				
Cys	His	Asn	Tyr	Leu	Ser	Glu	Glu	Cys	Pro	Asp	Val	Pro	Glu	Leu	His
				355				360			365				
Ile	Glu	Phe	Leu	Glu	Ala	Leu	Lys	Leu	Val	Asn	Val	Ser	Asn	Gln	Gln
				370				375			380				
Tyr	Asp	Gln	Ile	Val	Gln	Met	Thr	Gln	Tyr	His	Leu	Glu	Asp	Thr	Ile
				385				390			395			400	
Tyr	Leu	Met	Glu	Lys	Met	Gln	Glu	Gln	Phe	Gly	Trp	Val	Ser	Gln	Leu
				405				410			415				
Ala	Ser	His	Asn	Pro	Val	Thr	Glu	Asp	Ile	Phe	Asn	Ser	Thr	Lys	Ala
				420				425			430				
Val	Pro	Lys	Ile	His	Gly	Gly	Asp	Ser	Ser	Lys	Gln	Asp	Glu	Ile	Met
				435				440			445				
Val	Asp	Ser	Ser	Ser	Ile	Leu	Pro	Ser	Ser	Asn	Phe	Thr	Val	Gln	Asn
				450				455			460				
Pro	Pro	Glu	Glu	Gly	Ala	Glu	Ser	Ser	Asn	Val	Ile	Tyr	Tyr	Met	Ala
				465				470			475			480	
Ala	Lys	Val	Leu	Gln	His	Leu	Lys	Gly	Cys	Phe	Glu	Thr	Trp	Glu	Leu
				485				490			495				
Ile	Arg	Lys	Ala	Leu	Leu	Arg	Gly	Asn	Val	Thr	Asn	Lys	Lys	Lys	Lys
				500				505			510				

<210> 121

<211> 221

<212> DNA

<213> Homo sapiens

<400> 121

gaattagacg	aggcgatcg	gttggtaat	gtatccaatc	agcagtatgg	ccagattctc			60
cagatgaccc	ggaagcactt	ggaggacacc	gcctatctgg	tggagaagat	gagaggggcaa			120
tttggctgg	tgtctgaact	gccaaaccag	gccccagaaa	cagagatcat	ctttaattca			180
atacaggtaa	gaagatctaa	tgcatcctat	atccagtaag	t				221

<210> 122

<211> 524

<212> DNA

<213> Homo sapiens

<400> 122
 acacagaatt agacgaggcg atcagggtgg tcaatgtatc caatcagcag tatggccaga 60
 ttctccagat gacccggaag cacttggagg acaccgcata tctgggtggag aagatgagag 120
 ggcaatttgg ctgggtgtct gaactggcaa accaggcccc agaaacagag atcatctta 180
 attcaataca ggtagttcca aggattcatg aagggaaatat ttccaaacaa gatgaaacaa 240
 ttagtgcacaga cttaaagcatt ctgccttct ctaatttac actcaagatc cctcttgaag 300
 aaagtgcgtga gagttctaac ttcatggct acgtatggc aaaagctcta cagcatttta 360
 aggaacattt taaaacctgg taagcagagt gcctggtag gaatgccttgg 420
 tagttaattt cttaaaaggaa aaaacaaaac ttgttcaaa atacctgaa aacatgttta 480
 acctcattaa taaagacatg aaaacaaaaca agatggcatt ttct 524

<210> 123
 <211> 568
 <212> DNA
 <213> Homo sapiens

<400> 123
 gaatttagacg aggcgatcag gttggtcaat gtatccaatc agcagtatgg ccagattctc 60
 cagatgaccc ggaagcactt ggaggacacc gcctatctgg tggagaagat gagaggccaa 120
 ttggctggg tgtctgaact gccaaaccag gcccagaaa cagagatcat ctttaattca 180
 atacaggttag ttccaaggat tcatgaagaa aatatttcca aacaagatga aacaatgtatg 240
 acagacttaa gcattctgcc ttccctctaatttccacactca agatccctct tgaagaaagt 300
 gctgagagtt ctaacttcat tggctacgta gtggccaaag ctctacagca ttttaaggaa 360
 cattttaaaaa cctgaaaaaag atcctgaggc tcagtgtcca aggtccaatg aactactcag 420
 gtcggagggtg gtagagcagc atgtggagcc agttctcttccgactccat catcacactg 480
 cacggcttcc tgttaagata ttgctcaaa aaatgcgaga tataaaaaatc tggtaagaa 540
 gatctaattgc atcctatatc cagtaagt 568

<210> 124
 <211> 1141
 <212> DNA
 <213> H. sapiens

<220>
 <221> misc_feature
 <222> (789)...(798)
 <223> additional sequence present in full genomic sequence

<400> 124
 cctgaaagcc tggcgccaaat gacccgcgag acattttttgc cctgggggtgc tcctgtcgga 60
 aaggaaagag gaaaggacga ctaagaactt atactcgaac tcccgaattt ctctttcaa 120
 ggtttaagag gaaagcttgt tcgtggggat tggatggggag gcccaccagga aaccaagttc 180
 cccgcgccagc ttcaatgtctc ttcccttccycc gccccttttcccccccccac atcaacttgc 240
 ctccagtttt tgaaaacgct gccaaggcgaa atggccaca ggggaaaacg gaggaggggc 300
 caaagccagg actttgagac cggcgccgccc tcaagcccag gcagctctcc ctaaccctcc 360
 agcaactgggc aaacgctgcc ccatgacgccc cgcctcgggg gccacggcat cactggggcg 420
 actgcgagcc cggccgcgga gccgctggga cgcgcgttac ctcccggtc tcgcgtgtgt 480
 gtgtgttgcc cgcgcgcgtc acgtccctaa tgggaccctc cgtttcggcgt tctgttaaggc 540
 gaggaggacg atgcgtcccc tccctsgcag gattgagggtt aggactaaac ggggtccgca 600
 gcccgcgcgc gctcccgagc gctctccca gcccgcgcgc cctccttccc gccacccgtc 660
 cccgcaggggc cccgcgcgtc acctctcagg ctgtacgcgc cctgcgtgcc gaataccgac 720
 aggggtccgg tgcccggtc gtcgtccctc ctgacgcgc acgcggagat gtgtggatc 780
 tgccccaggt actttcagga ttccctggc ccagatgaag agataattct acttactgga 840
 tataggatgc attagatctt cttacctttaa aaaaaaaaaa aaaggcagca atgatcaaaa 900
 tactaataaa ttactcagactcgtgtatc tttttcttgc gatggggatccaggatggg 960
 taatagaata cctgctgttg gctttggaa aaatggtagt tttatgtatc aaaataatgt 1020
 gaaaccata tgcgtggata ttcttaacaa tttgaagaaa tcgtcacagc ttccctgggt 1080
 tggcgtggcctt cttttcttgc gatgtgataa taaagtgtttt attttgaact 1140
 c 1141

<210> 125
 <211> 27

<212> PRT
<213> Homo sapiens

<400> 125
Cys Arg Glu Ser Leu Ala Asp Ser Trp Gly Glu Cys Arg Ser Cys Leu
1 5 10 15
Glu Asn Asn Cys Met Arg Ile Tyr Thr Thr Cys
20 25

<210> 126
<211> 29
<212> PRT
<213> Homo sapiens

<400> 126
Gly Glu Leu Asp Gln Asn Leu Ser Arg Cys Phe Lys Phe His Glu Lys
1 5 10 15
Cys Gln Lys Cys Gln Ala His Leu Ser Glu Asp Cys Pro
20 25

<210> 127
<211> 27
<212> PRT
<213> Cavia sp.

<400> 127
Cys Gln Val Ser Leu Ala Asp Ser Trp Asp Glu Cys Arg Ala Cys Leu
1 5 10 15
Glu Ser Asn Cys Met Arg Phe Asp Thr Thr Cys
20 25

<210> 128
<211> 30
<212> PRT
<213> Cavia sp.

<400> 128
Asp Gly Lys Leu Gly Gln Asn Leu Ser Asp Cys Val Asn Phe Arg Lys
1 5 10 15
Arg Cys Gln Lys Cys Gln Asp Tyr Leu Ser Asp Asp Cys Pro
20 25 30

<210> 129
<211> 27
<212> PRT
<213> Bos sp.

<400> 129
Cys Gln Val Ser Leu Met Gly Ser Trp Asp Glu Cys Lys Ser Cys Leu
1 5 10 15
Glu Ser Asp Cys Met Arg Phe Tyr Thr Thr Cys
20 25

<210> 130
<211> 29
<212> PRT
<213> Bos sp.

<400> 130
Leu Cys Gly Glu Pro Gly Gln Asn Ser Ser Glu Cys Leu Gln Phe His
1 5 10 15
Ala Arg Cys Gln Lys Cys Gln Asp Tyr Leu Trp Ala Asp

<210> 131
 <211> 30
 <212> PRT
 <213> Homo sapiens

<400> 131
 Cys Arg Glu Ser Leu Ala Asp Ser Trp Gly Glu Cys Arg Ser Cys Leu
 1 5 10 15
 Glu Asn Asn Cys Met Arg Ile Tyr Thr Thr Cys Cys Gly Glu
 20 25 30

<210> 132
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 132
 Arg Arg Ser Asn Ala Ser Tyr Ile Gln
 1 5

<210> 133
 <211> 494
 <212> PRT
 <213> Homo sapiens

<400> 133
 Met Lys Ile Lys Ala Glu Lys Asn Glu Gly Pro Ser Arg Ser Trp Trp
 1 5 10 15
 Gln Leu His Trp Gly Asp Ile Ala Asn Asn Ser Gly Asn Met Lys Pro
 20 25 30
 Pro Leu Leu Val Phe Ile Val Cys Leu Leu Trp Leu Lys Asp Ser His
 35 40 45
 Cys Ala Pro Thr Trp Lys Asp Lys Thr Ala Ile Ser Glu Asn Leu Lys
 50 55 60
 Ser Phe Ser Glu Val Gly Glu Ile Asp Ala Asp Glu Glu Val Lys Lys
 65 70 75 80
 Ala Leu Thr Gly Ile Lys Gln Met Lys Ile Met Met Glu Arg Lys Glu
 85 90 95
 Lys Glu His Thr Asn Leu Met Ser Thr Leu Lys Lys Cys Arg Glu Glu
 100 105 110
 Lys Gln Glu Ala Leu Lys Leu Leu Asn Glu Val Gln Glu His Leu Glu
 115 120 125
 Glu Glu Glu Arg Leu Cys Arg Glu Ser Leu Ala Asp Ser Trp Gly Glu
 130 135 140
 Cys Arg Ser Cys Leu Glu Asn Asn Cys Met Arg Ile Tyr Thr Thr Cys
 145 150 155 160
 Gln Pro Ser Trp Ser Ser Val Lys Asn Lys Ile Glu Arg Phe Phe Arg
 165 170 175
 Lys Ile Tyr Gln Phe Leu Phe Pro Phe His Glu Asp Asn Glu Lys Asp
 180 185 190
 Leu Pro Ile Ser Glu Lys Leu Ile Glu Glu Asp Ala Gln Leu Thr Gln
 195 200 205
 Met Glu Asp Val Phe Ser Gln Leu Thr Val Asp Val Asn Ser Leu Phe
 210 215 220
 Asn Arg Ser Phe Asn Val Phe Arg Gln Met Gln Gln Glu Phe Asp Gln
 225 230 235 240
 Thr Phe Gln Ser His Phe Ile Ser Asp Thr Asp Leu Thr Glu Pro Tyr
 245 250 255
 Phe Phe Pro Ala Phe Ser Lys Glu Pro Met Thr Lys Ala Asp Leu Glu
 260 265 270

Gln	Cys	Trp	Asp	Ile	Pro	Asn	Phe	Phe	Gln	Leu	Phe	Cys	Asn	Phe	Ser
		275			280						285				
Val	Ser	Ile	Tyr	Glu	Ser	Val	Ser	Glu	Thr	Ile	Thr	Lys	Met	Leu	Lys
		290			295						300				
Ala	Ile	Glu	Asp	Leu	Pro	Lys	Gln	Asp	Lys	Ala	Pro	Asp	His	Gly	Gly
		305			310					315				320	
Leu	Ile	Ser	Lys	Met	Leu	Pro	Gly	Gln	Asp	Arg	Gly	Leu	Cys	Gly	Glu
												325		330	335
Leu	Asp	Gln	Asn	Leu	Ser	Arg	Cys	Phe	Lys	Phe	His	Glu	Lys	Cys	Gln
									340		345			350	
Lys	Cys	Gln	Ala	His	Leu	Ser	Glu	Asp	Cys	Pro	Asp	Val	Pro	Ala	Leu
									355		360		365		
His	Thr	Glu	Leu	Asp	Glu	Ala	Ile	Arg	Leu	Val	Asn	Val	Ser	Asn	Gln
									370		375		380		
Gln	Tyr	Gly	Gln	Ile	Leu	Gln	Met	Thr	Arg	Lys	His	Leu	Glu	Asp	Thr
									385		390		395		400
Ala	Tyr	Leu	Val	Glu	Lys	Met	Arg	Gly	Gln	Phe	Gly	Trp	Val	Ser	Glu
									405		410		415		
Leu	Ala	Asn	Gln	Ala	Pro	Glu	Thr	Glu	Ile	Ile	Phe	Asn	Ser	Ile	Gln
									420		425		430		
Val	Val	Pro	Arg	Ile	His	Glu	Gly	Asn	Ile	Ser	Lys	Gln	Asp	Glu	Thr
									435		440		445		
Met	Met	Thr	Asp	Leu	Ser	Ile	Leu	Pro	Ser	Ser	Asn	Phe	Thr	Leu	Lys
									450		455		460		
Ile	Pro	Leu	Glu	Glu	Ser	Ala	Glu	Ser	Ser	Asn	Phe	Ile	Gly	Tyr	Val
									465		470		475		480
Val	Ala	Lys	Ala	Leu	Gln	His	Phe	Lys	Glu	His	Phe	Lys	Thr		
									485		490				

<210> 134

<211> 1541

<212> DNA

<213> Rattus

<400> 134

aaaacgacgg	ccagtgcggc	acgaggcaca	tcgtaaaaag	tgaaggtcct	ttcagaagtt	60
atggcaatt	tctctgggaa	gagctgcaat	atcgtggaa	cactggacca	tgcagccacc	120
actctttgtg	atttctgtgt	atctgttatg	gttgaatat	tgtgacagtg	cacctacttg	180
gaaggagaca	gatgctacgg	atggaaacct	aaagagtctt	ccagaggtag	gagaggcaga	240
tgtagaggg	gaggtcaaga	aggctttgtat	tggcattaag	caaatgaaaa	tcatgtatgg	300
aaggagagag	gaggaacacg	caaaattgtat	gaaagcctt	aagaagtgc	aagaagaaaa	360
gcaggaggcc	cagaaactca	tgaacgaagt	gcaagaacgt	ctggaggaag	aagaaaaagct	420
atgtcaggca	tcttctatag	gttcttggaa	tggatgcagg	ccatgttttg	aaagtaactg	480
catacgattt	tatacagctt	gccaaacctgg	ttggcctct	gtaaaaagca	tcatgtatgg	540
atttctcaag	aagatatacc	gatttctgtc	ttcccaagat	gaagatgtaa	aggatcccc	600
tgcctatagaa	cagctgacta	aggaagattt	acaagtggta	cacatagaga	acctgtttag	660
ccagctggcc	gtggatgcaa	aatctcttt	caacatgagc	ttttacattt	ttaagcagat	720
gcagcaagaa	tttgcattcagg	ctttcaattt	atacttcatg	tccgatgtgg	acttaatgg	780
gccatataccc	ccagctttat	ctaaagat	aatcaaaaaa	gaagaacttg	ggcaaaggtg	840
ggcatttccc	aatgttcc	agctgttca	taatttcgt	ctctctgtt	atggagagt	900
ccaaacaata	ataatgaa	cactcaatgc	aatttgcgt	tcatggaaac	cacacaaaaga	960
gttagaccag	agaggtatga	tttcagat	gttacctgag	caaatggag	aatgtgtga	1020
ggaatttgc	aagaattttat	ctggatgttt	aaaatttcgt	aaaagatgcc	aaaaatgtca	1080
caattaccta	tctgaagaat	gccctgtatgt	acctgtactt	cacatagaat	tccttgaggc	1140
cctgaaatata	gtcaatgtat	ccaatcagca	atatgtatcg	attgtccaga	tgacccagta	1200
tcattttggaa	gataccat	acctgtatgt	gaaaatgca	gagcagttt	gatgggtgtc	1260
tcaactggca	agccataacc	cagtgtactg	ggacatctt	aattcaacaa	aggcagttcc	1320
aaagattcat	ggaggagatt	cttccaagca	ggatgaaattt	atggtagact	caagcagcat	1380
tctgccttcc	tctaacttca	ccgtccagaa	tcctcctgaa	gaagggtgtc	agagctaaa	1440
tgttattttac	tacatggcag	ctaaagttct	gcagcatcta	aagggtatgtt	ttgaaaacttg	1500
gttggaaatag	ctgatttagga	aagctttgtt	gagagggtag	g		1541

<210> 135
<211> 464
<212> PRT
<213> Rattus

<400> 135
Met Gln Pro Pro Leu Phe Val Ile Ser Val Tyr Leu Leu Trp Leu Lys
1 5 10 15
Tyr Cys Asp Ser Ala Pro Thr Trp Lys Glu Thr Asp Ala Thr Asp Gly
20 25 30
Asn Leu Lys Ser Leu Pro Glu Val Gly Glu Ala Asp Val Glu Gly Glu
35 40 45
Val Lys Lys Ala Leu Ile Gly Ile Lys Gln Met Lys Ile Met Met Glu
50 55 60
Arg Arg Glu Glu Glu His Ala Lys Leu Met Lys Ala Leu Lys Lys Cys
65 70 75 80
Lys Glu Glu Lys Gln Glu Ala Gln Lys Leu Met Asn Glu Val Gln Glu
85 90 95
Arg Leu Glu Glu Glu Lys Leu Cys Gln Ala Ser Ser Ile Gly Ser
100 105 110
Trp Asp Gly Cys Arg Pro Cys Leu Glu Ser Asn Cys Ile Arg Phe Tyr
115 120 125
Thr Ala Cys Gln Pro Gly Trp Ser Ser Val Lys Ser Met Met Lys Gln
130 135 140
Phe Leu Lys Lys Ile Tyr Arg Phe Leu Ser Ser Gln Ser Glu Asp Val
145 150 155 160
Lys Asp Pro Pro Ala Ile Glu Gln Leu Thr Lys Glu Asp Leu Gln Val
165 170 175
Val His Ile Glu Asn Leu Phe Ser Gln Leu Ala Val Asp Ala Lys Ser
180 185 190
Leu Phe Asn Met Ser Phe Tyr Ile Phe Lys Gln Met Gln Gln Glu Phe
195 200 205
Asp Gln Ala Phe Gln Leu Tyr Phe Met Ser Asp Val Asp Leu Met Glu
210 215 220
Pro Tyr Pro Pro Ala Leu Ser Lys Glu Ile Ile Lys Lys Glu Glu Leu
225 230 235 240
Gly Gln Arg Trp Gly Ile Pro Asn Val Phe Gln Leu Phe His Asn Phe
245 250 255
Ser Leu Ser Val Tyr Gly Arg Val Gln Gln Ile Ile Met Lys Thr Leu
260 265 270
Asn Ala Ile Glu Asp Ser Trp Glu Pro His Lys Glu Leu Asp Gln Arg
275 280 285
Gly Met Thr Ser Glu Met Leu Pro Glu Gln Asn Gly Glu Met Cys Glu
290 295 300
Glu Phe Val Lys Asn Leu Ser Gly Cys Leu Lys Phe Arg Lys Arg Cys
305 310 315 320
Gln Lys Cys His Asn Tyr Leu Ser Glu Glu Cys Pro Asp Val Pro Glu
325 330 335
Leu His Ile Glu Phe Leu Glu Ala Leu Lys Leu Val Asn Val Ser Asn
340 345 350
Gln Gln Tyr Asp Gln Ile Val Gln Met Thr Gln Tyr His Leu Glu Asp
355 360 365
Thr Ile Tyr Leu Met Glu Lys Met Gln Glu Gln Phe Gly Trp Val Ser
370 375 380
Gln Leu Ala Ser His Asn Pro Val Thr Glu Asp Ile Phe Asn Ser Thr
385 390 395 400
Lys Ala Val Pro Lys Ile His Gly Gly Asp Ser Ser Lys Gln Asp Glu
405 410 415
Ile Met Val Asp Ser Ser Ser Ile Leu Pro Ser Ser Asn Phe Thr Val
420 425 430
Gln Asn Pro Pro Glu Glu Gly Ala Glu Ser Ser Asn Val Ile Tyr Tyr

435	440	445
Met Ala Ala Lys Val Leu Gln His	Leu Lys Gly Cys	Phe Glu Thr Trp
450	455	460

<210> 136
 <211> 1541
 <212> DNA
 <213> Rattus

<400> 136

aaaacgacgg ccagtgcggc acgaggcaca tcgtaaaaag tgaaggctt ttcagaagtt	60
agtggcaatt tctctgggaa gagctgcaat atcgtggaa cactggacca tgcagccacc	120
actctttgtt atttctgtgt atctgttatg gttgaaatat tttgacagtg cactacttg	180
gaaggagaca gatgctacgg atggaaacctt aaagagtctt ccagaggtag gagaggcaga	240
tgttagggaa gaggtcaaga aggcttgc tggcattaag caaatgaaaa tcatgatgga	300
aaggagagag gaggaacacg caaaattgtt gaaagcctt aagaagtgc aagaagaaaa	360
gcaggaggcc cagaactca tgaacgaagt gcaagaacgt ctggaggaag aagaaaagct	420
atgtcaggca tcttctatag gttctggaa tggatgcagg ccatgttgg aaagtaactg	480
catacgatttatacagttt gccaacctgg ttggcctctt gtgaaaagca tcatgatgca	540
atttctcaag aagatatacc gatttctgtc ttccagagt gaagatgtaa aggatcccc	600
tgcctatagaa cagctgacta aggaagattt acaagtggta cacatagaga acctgtttag	660
ccagctggcc gtggatgcaa aatctctt caacatgagc ttttacattt ttaagcagat	720
gcagcaagaa tttgatcagg ctttcaattt atacttcatg tccgatgtgg acttaatgga	780
gccatataccc ccagcttattt ctaaagagat aatcaaaaaa gaagaactt ggcaaagggt	840
gggcatttccc aatgtcttcc agctgtttca taatttcattt ctctctgtttt atggagagt	900
ccaaacaaataataatgaa cactcaatgc aatttgc aatggat tcatggaa cacacaaaga	960
gttagaccag agaggatgtt cttcagatgtt gttacctgag caaatggag aaatgtgtga	1020
ggaatttgc aagaattttt ctggatgtttt aaaaatttgc aaaaatgtcc aaaaatgtca	1080
caatttaccta tctgaagaat gcccgtatgtt acctgtt aatggatgtt aatggatgtca	1140
cctgaaatattt gtcaatgtt ccaatcagca atatgtatgtt attgtccaga tgaccaggta	1200
tcattttggaa gataccatgtt acctgtatgtt gaaaatgca gggcgtt gatgggtgtc	1260
tcaactggca agccataacc cagtgtactt gggcgtt aattcaacaa aggccgttcc	1320
aaagatttcat ggaggagattt cttccaaagca ggatgaaattt atggtagactt caagcagcat	1380
tctgccttcc tctaacttca ccgtccagaa tcctcctgaa gaaggtgtt agagctcaaa	1440
tgttattttac tacatggcag ctaaagtttgc tgcacatcta aagggtgtt ttgaaacttgc	1500
gtaagaatag ctgatttagga aagctttgtt gagaggtagt g	1541

<210> 137

<211> 464
 <212> PRT
 <213> Rattus

<400> 137

Met Gln Pro Pro Leu Phe Val Ile Ser Val Tyr Leu Leu Trp Leu Lys			
1	5	10	15
Tyr Cys Asp Ser Ala Pro Thr Trp Lys Glu Thr Asp Ala Thr Asp Gly			
20	25	30	
Asn Leu Lys Ser Leu Pro Glu Val Gly Glu Ala Asp Val Glu Gly Glu			
35	40	45	
Val Lys Lys Ala Leu Ile Gly Ile Lys Gln Met Lys Ile Met Met Glu			
50	55	60	
Arg Arg Glu Glu Glu His Ala Lys Leu Met Lys Ala Leu Lys Lys Cys			
65	70	75	80
Lys Glu Glu Lys Gln Glu Ala Gln Lys Leu Met Asn Glu Val Gln Glu			
85	90	95	
Arg Leu Glu Glu Glu Lys Leu Cys Gln Ala Ser Ser Ile Gly Ser			
100	105	110	
Trp Asp Gly Cys Arg Pro Cys Leu Glu Ser Asn Cys Ile Arg Phe Tyr			
115	120	125	
Thr Ala Cys Gln Pro Gly Trp Ser Ser Val Lys Ser Met Met Lys Gln			
130	135	140	
Phe Leu Lys Lys Ile Tyr Arg Phe Leu Ser Ser Gln Ser Glu Asp Val			

145	150	155	160
Lys	Asp	Pro	Pro
Ala	Ile	Glu	Gln
Leu	Thr	Lys	Glu
Asp	Leu	Gln	Val
165	170	175	
Val	His	Ile	Glu
Asn	Leu	Phe	Ser
Gln	Leu	Ala	Val
Leu	Asp	Ala	Lys
180	185	190	
Leu	Phe	Asn	Met
Met	Ser	Phe	Tyr
Ile	Phe	Lys	Gln
195	200	205	
Asp	Gln	Ala	Phe
Gln	Leu	Tyr	Phe
Met	Ser	Asp	Val
Val	Asp	Leu	Met
210	215	220	
Pro	Tyr	Pro	Pro
Ala	Leu	Ser	Lys
Glu	Ile	Thr	Lys
225	230	235	240
Gly	Gln	Arg	Trp
Gly	Ile	Pro	Asn
Val	Phe	Gln	Leu
Leu	Phe	His	Asn
245	250	255	
Ser	Leu	Ser	Val
Tyr	Gly	Arg	Val
Gln	Gln	Ile	Ile
260	265	270	
Asn	Ala	Ile	Glu
Glu	Asp	Ser	Trp
Glu	Pro	His	Lys
275	280	285	
Gly	Met	Thr	Ser
Glu	Met	Leu	Pro
Glu	Gln	Asn	Gly
290	295	300	
Glu	Phe	Val	Lys
Asn	Leu	Ser	Gly
Cys	Leu	Lys	Phe
305	310	315	320
Gln	Lys	Cys	His
Asn	Tyr	Leu	Ser
Glu	Glu	Cys	Pro
325	330	335	
Leu	His	Ile	Glu
Phe	Leu	Glu	Ala
Leu	Lys	Leu	Val
Asn	Val	Ser	Asn
340	345	350	
Gln	Gln	Tyr	Asp
Gln	Ile	Val	Gln
Met	Thr	Gln	Tyr
His	Leu	Glu	Asp
355	360	365	
Thr	Ile	Tyr	Leu
Met	Glu	Lys	Met
Gln	Glu	Gln	Phe
Gly	Tyr	Trp	Val
370	375	380	
Gln	Leu	Ala	Ser
His	Asn	Pro	Val
385	390	395	400
Lys	Ala	Val	Pro
Lys	Ile	His	Gly
Gly	Asp	Ser	Ser
405	410	415	
Ile	Met	Val	Asp
Ser	Ser	Ile	Leu
420	425	430	
Gln	Asn	Pro	Pro
Glu	Gly	Ala	Glu
435	440	445	
Met	Ala	Ala	Lys
Val	Leu	Gln	His
Leu	Lys	Gly	Cys
450	455	460	

<210> 138
 <211> 1326
 <212> DNA
 <213> Rattus

<400> 138

aaaacgacgg	ccagtgccgc	acgaggcaca	tcgtaaaaag	tgaaggctt	ttcagaagtt	60
agtggcaatt	tctctgggaa	gagctgcaat	atcggtggaa	cactggacca	tgcagccacc	120
actctttgtg	atttctgtgt	atctgttatg	gttggaaatat	tgtgacagtg	cacctacttg	180
gaaggagaca	gatgctacgg	atggaaacact	aaagagtctt	ccagaggtag	gagaggcaga	240
tgtagaggga	gaggtcaaga	aggctttgat	tggcattaag	caaataaaaa	tcatgtatgg	300
aaggagagag	gaggaacacg	caaaattgtat	gaaagccttg	aagaagtgc	aagaagaaaa	360
gcaggaggcc	cagaaactca	tgaacgaagt	gcaagaacgt	ctggaggaag	aagaaaagct	420
atgtcaggca	tcttctatag	gttcttggaa	tggatgcagg	ccatgttttg	aaagtaactg	480
catacgattt	tatacagctt	gccaacctgg	ttggctctct	gtaaaagca	tgtatgaagca	540
atttctcaag	aagatataacc	gatttctgtc	ttcccgagat	gaagatgtaa	aggatcccc	600
tgcctatagaa	cagctgacta	aggaagattt	acaagtggta	cacatagaga	acctgtttag	660
ccagctggcc	gtggatgcaa	aatctcttt	caacatgagc	ttttacattt	ttaagcagat	720
gcagcaagaa	tttgcattcagg	ctttcaattt	atacttcatg	tccgatgtgg	acttaatgg	780
gccatataccc	ccagctttat	ctaaagagat	aaccaaaaaa	gaagaacttg	ggcaaagggt	840
ggcattcc	aatgttcc	agctgtttca	taatttcagt	ctctctgttt	atgggagagt	900
ccaacacaata	ataatgaaga	cactcaatgc	aattgaagat	tcatggaaac	cacacaaaga	960

gttagaccag	agaggtatga	cttcagagat	gttacctgag	caaaatggag	aatatgtgtga	1020
ggaaatttgc	aagaatttat	ctggatgtt	aaaatttcgt	aaaagatgcc	aaaaatgtca	1080
caattaccta	tctgaaggca	gttccaaaga	ttcatggagg	agattctcc	aagcaggatg	1140
aaattatgg	agactcaagc	agcattctgc	cttcctctaa	cttcaccgtc	cagaatcctc	1200
ctgaagaagg	tgctgagagc	tcaaattgtt	tttactacat	ggcagctaaa	gttctgcagc	1260
acttaaagg	atgtttgaa	acttggtaag	aatagctgat	taggaaagct	ttgttgagag	1320
ggtagg						1326

<210> 139

<211> 344

<212> PRT

<213> Rattus

<400> 139

Met	Gln	Pro	Pro	Leu	Phe	Val	Ile	Ser	Val	Tyr	Leu	Leu	Trp	Leu	Lys
1				5					10				15		
Tyr	Cys	Asp	Ser	Ala	Pro	Thr	Trp	Lys	Glu	Thr	Asp	Ala	Thr	Asp	Gly
								20	25					30	
Asn	Leu	Lys	Ser	Leu	Pro	Glu	Val	Gly	Glu	Ala	Asp	Val	Glu	Gly	Glu
								35	40				45		
Val	Lys	Lys	Ala	Leu	Ile	Gly	Ile	Lys	Gln	Met	Lys	Ile	Met	Met	Glu
								50	55			60			
Arg	Arg	Glu	Glu	Glu	His	Ala	Lys	Leu	Met	Lys	Ala	Leu	Lys	Lys	Cys
								65	70		75		80		
Lys	Glu	Glu	Lys	Gln	Glu	Ala	Gln	Lys	Leu	Met	Asn	Glu	Val	Gln	Glu
								85	90			95			
Arg	Leu	Glu	Glu	Glu	Lys	Leu	Cys	Gln	Ala	Ser	Ser	Ile	Gly	Ser	
								100	105			110			
Trp	Asp	Gly	Cys	Arg	Pro	Cys	Leu	Glu	Ser	Asn	Cys	Ile	Arg	Phe	Tyr
								115	120			125			
Thr	Ala	Cys	Gln	Pro	Gly	Trp	Ser	Ser	Val	Lys	Ser	Met	Met	Lys	Gln
								130	135			140			
Phe	Leu	Lys	Lys	Ile	Tyr	Arg	Phe	Leu	Ser	Ser	Gln	Ser	Glu	Asp	Val
								145	150		155		160		
Lys	Asp	Pro	Pro	Ala	Ile	Glu	Gln	Leu	Thr	Lys	Glu	Asp	Leu	Gln	Val
								165	170			175			
Val	His	Ile	Glu	Asn	Leu	Phe	Ser	Gln	Leu	Ala	Val	Asp	Ala	Lys	Ser
								180	185			190			
Leu	Phe	Asn	Met	Ser	Phe	Tyr	Ile	Phe	Lys	Gln	Met	Gln	Gln	Glu	Phe
								195	200			205			
Asp	Gln	Ala	Phe	Gln	Leu	Tyr	Phe	Met	Ser	Asp	Val	Asp	Leu	Met	Glu
								210	215			220			
Pro	Tyr	Pro	Pro	Ala	Leu	Ser	Lys	Glu	Ile	Thr	Lys	Lys	Glu	Glu	Leu
								225	230		235		240		
Gly	Gln	Arg	Trp	Gly	Ile	Pro	Asn	Val	Phe	Gln	Leu	Phe	His	Asn	Phe
								245	250			255			
Ser	Leu	Ser	Val	Tyr	Gly	Arg	Val	Gln	Gln	Ile	Ile	Met	Lys	Thr	Leu
								260	265			270			
Asn	Ala	Ile	Glu	Asp	Ser	Trp	Glu	Pro	His	Lys	Glu	Leu	Asp	Gln	Arg
								275	280			285			
Gly	Met	Thr	Ser	Glu	Met	Leu	Pro	Glu	Gln	Asn	Gly	Glu	Met	Cys	Glu
								290	295		300				
Glu	Phe	Val	Lys	Asn	Leu	Ser	Gly	Cys	Leu	Lys	Phe	Arg	Lys	Arg	Cys
								305	310		315		320		
Gln	Lys	Cys	His	Asn	Tyr	Leu	Ser	Glu	Gly	Ser	Ser	Lys	Asp	Ser	Trp
								325	330			335			
Arg	Arg	Phe	Phe	Gln	Ala	Gly	Glx								
								340							

<210> 140

<211> 18596

<212> DNA

<213> Homo sapiens

<400> 140

cctgttagtcc	cagctacgcg	agaggctgag	gcagcagaat	tacttgaacc	caggaggcgg	60
agttgcagt	gagccgagat	cgccgcactg	cactccagcc	tgggtgagag	agcgagactc	120
tgtctcaaaa	aaaaaaaaaa	aagaccgcca	gggctcaaac	aaaaaaccc	ggaaaagccc	180
tggcggtctt	ttttttttt	ttttttttt	tttttggga	cagtcttgct	ctgtcgccca	240
ggctggagta	caatgtcgg	atcttggctc	actgcaacct	ctgcctccca	ggttcaagca	300
attcttctgc	ctcagcctcc	caagtagcca	ccaccccag	ctaattttt	tacttttagt	360
agagacgggg	gtttcaccat	gttgcacgg	ctggcttga	actcctgacc	tcaggtgatc	420
cacccgcctc	ggccccccaa	agtactagga	ttacaggcgt	gagccacccg	gtccagcgcc	480
ctggcggttt	ttaatcaagt	agaaaagctg	cattatacca	cttgcttcgg	ttgtttcagt	540
gagaacgaag	aaatgaaat	gcaaattccct	tattagttgt	aggaaacaga	tctcaaacag	600
caagtttgtt	gacaagaccg	cagaaaaacg	tggaaactgt	gctgctggct	tagagaaggc	660
gcggtcgacc	agacggttcc	caaagggcgc	agtccctccc	agccaccgca	cctgcatcca	720
gtttcccggg	tttccctaaga	ctctcagctg	tggcctggg	ctccgttctg	tgccacaccc	780
gtggctctg	cgttttcccc	ttggcgcacgc	tctctagagc	ggggggccgc	gcgaccccg	840
cgagcaggaa	gaggcggagc	gcgggacgc	cgcgggaaaa	ggcgcgcgg	aggggtcctg	900
ccaccgcgc	acttggcctg	cctccgtccc	gccgcgcccac	ttggcctgccc	tccgtccgc	960
cgcgccactt	cgcctgcctc	ctgtcccccc	ccgcccgc	atgcctgtgg	ccggctcgga	1020
gtgcgcgc	cggcccttgc	ccccccgc	acagagcgg	gacgcccggc	cgcgccgc	1080
gcacggggag	ctgcagtacc	tggggcagat	ccaaacacatc	ctccgctgc	gcgtcaggaa	1140
ggacgaccgc	acgggcaccg	gcaccctgtc	gttattcggc	atgcaggcgc	gtcacagcct	1200
gagaggtgac	gccgcggg	cctgcgggac	gggtggcg	aaggagggag	gcgcggctgg	1260
ggagagcgct	cggagactgc	cgggcgctgc	ggaccccgtt	tagtccta	ctcaatcctg	1320
ccagggaggg	gacgcacatgt	cctcctcgcc	ttacagacgc	cgaaacggag	gttccatt	1380
ggacgtgac	ttgcgcgggc	aacacacaca	gcagcgacag	ccgggaggt	agccgcgtcc	1440
cagcggctcc	gcggccgggc	tcgcagtgc	cccagtgtat	ccgtggccccc	cgaggcgggc	1500
gtcatcgggc	agcgttgc	cagtgtgat	gggttagg	gagctgcctg	ggcttgaccg	1560
cgcgcgggtc	tcaaagtct	gccttggc	cctcctccgt	tttccctgt	ggaccattcc	1620
gtttcgac	gtttcaaaa	actggagcga	aagtgtatgt	ggcggggca	aggcggcg	1680
aagaggacag	caactgaa	ggcgcgggaa	cttgcgttcc	ttgtggc	ccatccaatc	1740
ccaccaacc	agcttcctc	ttaaacctt	aaaagagaaa	ttcgggagtt	cgagttctt	1800
gtcgccctt	cctcttcct	ttccgacagg	agcacc	gcaaaaaat	tctcgccgt	1860
cattggcgcc	aggcttc	gggacagtgg	ggcggggc	ggtggcaca	ggacgtttag	1920
cagccgttgg	ccctccctaa	gccacaccc	tcctgcgtc	ctggatc	cgccagctgc	1980
gcgggggagg	ggactcgaag	gtgtgtgagc	cagggctga	ccttgaccgc	tcagataat	2040
ggagcgcagc	cttgacacag	gggtggaggt	gtttaat	ggggaaaccc	attcgtgg	2100
aagcagattc	actgttagcta	gcggaaaaac	cctccggccc	acggaccat	ctagagacga	2160
atacatagca	gctgtgtgg	ctgattggc	tggacagcg	tggggagtt	tgtctgagga	2220
gagggatcca	ctttctgca	gctccaagcc	cagggcc	tgtgagcca	tagacctat	2280
tttaaccca	ccttctgt	tagacatt	gcaagttact	tctcatat	cttccctata	2340
tgttaaaaat	ggagaaaata	atgcttaga	ggcaattctg	ataaaagcag	gtgttgc	2400
aaatctct	gttgcgtgaa	tataaactgt	accacaagcg	agtgcggat	aacaggact	2460
gcatttaaag	ataagttt	acacttcat	ttctctgtgg	ctcgacactt	ctgatgcctc	2520
cctttttgtt	cctggacac	atgcttgg	ttgtcttac	accttgc	caggattagc	2580
actagtgggc	agtggatgt	agctccct	ccctttg	acatgttcat	ccctgc	2640
gccaccatct	cactgtgtgg	aattcctgt	tccactggc	accggggac	agaagtgc	2700
tctcagcctg	aatcgggcca	ctgatggac	ttcagcctg	ggagctccac	cgtatct	2760
ggcccactt	gcgggagtct	aggcttctg	gatgtcc	gcctcacgtc	ccagggc	2820
tttctccct	gaagaaagt	gatggcat	atctgttcc	ccatctt	accgtatgg	2880
aaattgtttt	tcaatgtat	ccctctgt	gacaacaaa	cgtgttt	gaaagggt	2940
tttggaggag	ttgtgtgtt	ttatcaaggt	aaagaagt	ctgttatt	aagtca	3000
tctgttctca	acacagcagc	cagttagatc	cttcaaaac	tcaaagcagc	cagggtgt	3060
ggctcacgc	tgtatccca	ccgcttgg	aggctgagtc	agatcac	agtttag	3120
tttgggacca	gcctggccaa	catggcgaca	ccccagtc	tactaataac	acaaaaatt	3180
agccaggtgt	gtgtgtcat	gtctgtat	ccagctact	aggaggctg	ggcatgag	3240
ttgctcacga	ggcggaggtt	gttagttagct	gagatgtgg	cactgtact	cagcctgg	3300
acagaggggag	aaccatgtc	aaaaacaaa	aaagacacca	ccaaagg	tca aagcatat	3360
ttcctcaccc	tcaagccctt	agtggctcca	tttca	ctgact	taagagccac	3420
gtgtccgtt	ttcagctctg	accttagctg	ctgctct	caccacc	ggcctt	3480

gagttttga	gcacaccggg	acatccccac	tcccttggAAC	cttcttcccc	cacacttggc	3540
ttcttcctt	gagtctctac	tccactcggg	caaggcttcc	tagaccttct	gattaaaac	3600
tgtgactctc	ccccaacctc	cttgggttt	ctccgttagac	gaacatcacc	atctgatgtA	3660
tgtcagcctt	tccctcccc	tgttagaagg	gggacagcag	gtagaaaaag	tgaatgtgc	3720
tgtaaagctt	atgagggcag	aggattttt	tctcggttc	actgttgat	cggcaggggcc	3780
tccaaacacag	cctgcacat	agttaggatc	aacatatatt	gatcactaaa	tgtagatacc	3840
acctgtgttc	ccatgttcat	ataaaattcta	gaagagtctc	ttcagtaaca	aggtgaaccc	3900
cttccagagg	gctgagtagg	tacctcaggc	cggggccaga	gtgctgtgaa	gacagcagca	3960
gcccgagcca	agcttctctg	tgttccgtgt	cctgtctag	aaccagcgat	gttcttctg	4020
accagtgcct	tttggaaagg	ggctgaggc	tgggctcagg	tctgggccc	actagaagct	4080
gggatccctt	ctatacgac	cttggtatgg	cttgtatgg	cttggggcaa	gccagaccca	4140
agccctctta	tcccattta	gaaagggtt	caatttggat	ccagccccag	gtctgcctta	4200
gctctgtatt	cttgggtat	tttggtctgt	attggctat	cttgactaac	aatgagcctt	4260
ggatttggaaa	catacatca	gaaacctcg	aagacaacat	tcttaaactg	gctagagcct	4320
ggtctgaatg	gatgaaaagg	agagacttt	gaagcaatat	gtaaaagatt	gagaaatgat	4380
tttggggaaa	tttctcaatt	ggagaaattt	cttggatttg	ttggaaattt	cttgattct	4440
ttctcaatca	aagaaaatcg	ggacaaactc	aacaatagaa	agggagggaa	caagataactc	4500
agaaaataaaa	tgcattcccc	tgttcaact	taatgctca	attcaggatt	ctaaggaatc	4560
cttgccagga	atgtcagact	caccttgata	gttggaggtt	ctccatttgg	gactcgatca	4620
aatacaggag	ttgaggcacc	tgcactgtaa	aatactgatt	agtctgtatca	ttaggaatat	4680
cctgtatgcc	aggtagaaga	tacattgaa	agattgcatt	taggcattaa	attcattttg	4740
gggttattaca	tatagacaac	acatttcatt	aagaaacata	aaactgtcg	atcggtggaa	4800
tactttaaag	cacttggagg	tgtttagcct	aaaaagctt	gttggggga	atgaaagaaa	4860
agatctggga	gggtgggtcc	aaagaaggga	tcagactatc	ctaaagccct	caggaatctg	4920
ggctgggacc	acctacttaa	agataggatg	ggcagctggg	tgtggtgct	cacgcctgt	4980
atcccagcac	ttcgggaggc	cgaagcgggc	ggatcacctg	aggtcaggag	ttcggggcca	5040
gcctgaccaa	catggagaaa	cgctgtctct	actaaaaata	caaatttgc	tgggtgtagt	5100
ggcgcatgcc	tgtatccca	gctactcggg	aggctgaggc	aggggaatcg	tttgcacccgt	5160
ggaggtggag	ggtccgtga	gccacgatcg	cgccatttgc	ctccagctg	ggcaacaaga	5220
gcgaaaactct	caaaaaacaa	aaaaaaggat	gggtccata	tgggtgggt	caagtgcctt	5280
cctccttagca	agtcagcagg	ggccagaggc	ccttgcatttgc	gggtctcg	ggggatcaac	5340
tgagatggct	taagatttac	ctggatgcct	gtctgtct	ccccatctct	tccagggtatc	5400
cacaaatgc	aaagagctgt	cttccaaagg	agtggaaatc	tgggatgca	atgatcccg	5460
agactttttt	gacaggctgg	gattctccac	cagagaagaa	ggggacttgg	gccaggat	5520
tggcttccag	tggaggcatt	ttggggcaga	atacagagat	atgaaatcag	gtgaggagat	5580
agaacaatgc	cttccatttc	cggttgcctt	tcctagcacg	tgtttgcctt	gtgttttag	5640
ataaggctct	ggggatgagt	caatgtcaca	ggagctgat	tatagttttgc	accttgcgt	5700
gggtggtgcc	aggttgaagc	cacaatttac	gcctactgaa	ggccgttca	catctttttt	5760
tttttttttt	tttaatttat	tatactttaa	gttttaggtt	acatgtgcac	aatgtgcagg	5820
ttagttacat	atgtatacat	gtgccatgt	ggtgcgtgc	accactaact	caccatctag	5880
catcaggtat	atctccaaat	gctatccctc	ccccctcc	ccacccacaa	acatccccag	5940
agtgtgtat	tcccttcct	gtgtccat	gttctcg	ttcgattttcc	actatgatgt	6000
agaatatgc	gtgttgggtt	ttttgttctt	gcatgttttgc	actgagaatg	atgatttca	6060
tttcaccacg	tccctacaga	ggacatgaa	tcatcattt	ttatggctgc	atagtattcc	6120
atgggtgtata	tgtccacat	tttcttaatc	cagtcattca	tgttggacat	ttgggttggt	6180
tccaagtctt	tgcctattgt	gaatagtgc	acaataaaca	tacgtgtgc	tgtgtcttta	6240
tagcagcatg	atttaatagt	ccttgggtt	tataccagt	aatgggatgg	ctgggtcaaa	6300
tgttattttc	agttcttagat	ccccggggaa	tcgcacact	gacttccaca	atggttgaac	6360
tagtttacag	tcccaccaac	agtgtcaaag	tgtcttattt	ctccacatcc	tctccagcac	6420
ctgttggtttcc	ctgacttttt	atgatttgc	attctaactg	gtgtgagatg	gtatcttatt	6480
gtggttttgt	tttgcgttcc	tctgtggcc	agtgtgggt	agcatttttt	catgtttttt	6540
ttggctgtat	aatgtcttc	ttttgagaag	tgtctgtca	tgtccttcgc	ccacttttttgc	6600
atgggggtgt	ttttttctta	taaatttgg	ttagttcatt	ttagattctg	gatattagcc	6660
cttgcaga	tgagtaggtt	gaaaaatgt	tctccattt	tgtgggttgc	ctgttactc	6720
tgtatggatgt	ttctttgt	gtgcagaagc	tctttgttt	aattagatcc	catttgc	6780
tttggctttt	tgttgcattt	gtttggcc	taggcattaa	gtccttgc	atgcctatgt	6840
cctgaatggt	aatgcctagg	ttttcttctt	gggttttat	gttttaggt	ctaacgttta	6900
agtctttat	ccatcttgc	ttgatgttttgc	tataagggtt	aaggaaggga	tccagttca	6960
gttttttaca	tatggctagc	cagtttccc	agcaccattt	attacatagg	gaatccttc	7020
cccatttgctt	gttttctca	gtttgtcaa	agatcgat	gttggatata	tgccggcgta	7080
tttctgaggg	ctctgttctg	ttccatttgc	ctatgtgtct	gtttggatc	cagttaccata	7140
ctgttttgggt	tactgtagcc	ttgttagtata	gttggatgc	aggtagcg	atgcctccag	7200

ctttgttctt ttggcttagg attgacttgg cgatgcggc tctttttgg ttccatatga	7260
actttaaagt agtttttcc aattctgtgaa agaaagtcat tggtagctt atggggatgg	7320
cattgaatct ataaattacc ttgggcagta tggcatttt cacgatattt atttttcata	7380
cccatgagca tggaaatggc ttccattttt ttgtatcctc ttttatttca ttgagcagt	7440
gtttgttagtt ctcctgtaaag aggcttca catccctttt aagggtggatt cctaggtatt	7500
ttattctctt tgaagaattt gtgagtgaa gttcaactcat gatttggctc tctgtttgtc	7560
tgttatttggt gtataagaat gcttgtgatt tttcagattt gattttatataat cctgagactt	7620
tgcgtaaagct gcttattcagc ttaaggagat tttggctga gacaatgggg ttttcttagat	7680
ataacaatcat gtcgtctgca aacagggaca atttgcattt ctcttttcc aattgaatac	7740
cctttatttc cttctctgc ctaattgccc tggccagaac ttccaacact atgttgaata	7800
ggagtgggtga gagaggcat ccctgtctt tgccagttt caaaggaaat gcttccagtt	7860
tttgcattt cactatgata ttggctgtgg ctttgcata gatagtctt attatgttga	7920
aatatgttcc atcaataacct aatttatttga gagtttttag catgtatgtt tttgttgaattt	7980
tgtcaaaaggc tttttctgca tctatttggaa taatcatgtt gttttgtct ttgatctgt	8040
ttatatgctg gattacattt attgatttgc gatatattgaa ccagccttgc atccctaggaa	8100
tgaagccac atgatcatgg tggataagct ttttgcattt ctgcgtggatt cggttgcac	8160
gtattttattt gaggattttt gcatcaatgt tcataaagga tatttgcata aaattcttt	8220
ttttgttgc tctctgc cttttttttt ctattgttgc gaaatgtttc agaaggaaat gtaccgttc	8280
aggaggattt ccctttttt ctattgttgc gaaatgtttc agaaggaaat gtaccgttc	8340
ctctttgtac ctctggagaa ttccggctgtt aatccatctt gtcctggact ctctttgggt	8400
ggttaagctat tgattatttgc cacaatttca gtcctgttta ttggcttattt cagagattca	8460
acttcttcctt ggttttgttgc tgggagatg tatttgcattt ggaattttatc catttcttct	8520
agattttctt gtttatttgc gtagaggtt tttttttttt ctctgtatgtt agtttgcattt	8580
tctgtggat cgggtgtat atcccccttta tcatttttta ttgcgtctt tttgttcttgc	8640
tctttttctt tattttttttt gctagcggtt tataaattttt gttgatcattt tcaaaaaacc	8700
agctcctggaa ttcatattttt ttttgaaggg tttttttttt ctctatttttcc ttcaagtcttgc	8760
ctctgattttt agttttttttt tgccttctgc tagcttttgc atatgttgc tcttgcattt	8820
ctagttctttt taattttgtat tttaggttgc tttttttttt tttttttttt tttttttttt	8880
gggcattttttag tgctataaat ttccctctac acactgtttt gaaatgttgc cagagtttct	8940
ggtagtttttgc ttctttttttt ttgttgggtt caaagaacat ctttatttttgc ttcaagtcttgc	9000
cgttatgtac ccagtagtca ttccaggagca gtttgcatttgc ttccatgtt gttgagcagt	9060
tttgagttttttttt attcttaatc ctgagtttca gtttgcatttgc actgttttttgc gagagatgt	9120
tttgttataat ttctgttctt ttacatttttgc tgaggagagc tttactttca actatgttgc	9180
cgtttttttttt atagggtgtgg tttttttttt aaaaaatgtt atattcttttgc gtttgggtt	9240
ggagttctgtt agatgtctat taggttgc tttttttttt tttttttttt tttttttttt tttttttttt	9300
tcctttgttgc ctttctgttgc ctgttgcatttgc tttttttttt tttttttttt tttttttttt	9360
ccattatttttgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	9420
tggcgcttgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	9480
gctttttttttt gggaaatgttca ttccggggac aaggacaaaaa tttttttttt tttttttttt tttttttttt	9540
ggctttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	9600
cgcagtttccat tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	9660
cttcacttcttgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	9720
gactttccat tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	9780
gagccctttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	9840
tgtgtgttgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	9900
aaggggacat tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	9960
aattttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10020
ttagcaactt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10080
gcagaaatgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10140
ttaatgggtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10200
atggagatgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10260
gtatgttgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10320
gtatgttgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10380
gtatgttgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10440
tggcaagttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10500
ttacttgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10560
aggatgttgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10620
tttcttgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10680
tttagcttttgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10740
attcacaggtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10800
tggactcttctt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10860
cattgggttgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	10920

tgtatttgca	attttagcac	gtgttagactc	ttgttaaccac	tacaatcaag	ttacagaact	10980
acactaccaa	ggttcatctt	tttaaaatct	ttgtatgtac	cttttttgg	acagtgacca	11040
ttagaggact	ttcctccaa	aattttgaaa	actactgaac	cagaatatag	tctgacacta	11100
ataggtagaa	atthaaccaa	aggagattat	gaagctctgc	acttgagtt	acaaaatcac	11160
ttctcagctt	ccagttccat	ctcagaagga	aggaaaaggg	attaaaaatc	cagagaccag	11220
aaaatgggag	caaagtacaa	gtgtgtgtaa	tcattacaga	ggtttcctga	tgtttccaag	11280
tcagtcgtgt	gtttagctgc	taaactctaa	agtaatttta	ggtggaatgt	tggaaacatg	11340
ctgctgaggt	gatagaagg	aatccatggt	cctctgttag	ttggaaagta	tatggaatac	11400
tatattctac	ataagataca	atactctctg	tgagacaagg	ataaagtata	ttttgtcagt	11460
gaaattgtga	caagaatcgc	tgatgggtt	agagcctaag	tttgcgagga	gcactggaag	11520
aaattaagat	tgttagatt	gaaagggtt	agctatgggg	gaacaggagg	aggtgactcc	11580
atgacagacc	aaatattcaa	aggactgtgt	agaagaggaa	aaagactttg	ttagggctcc	11640
agaggacaga	gccaggagtc	agacaggccc	ttgaactcaa	cccaccgaga	tctgcaaact	11700
ttgcaggatg	caccagatgt	tttgcgtcc	ttggcaagg	ggggaccctg	ggttaagagac	11760
tgtatagat	gacctctaa	gccatctcat	gacatgtgt	attaatgtat	gtacctgtcc	11820
tctcttttg	acaattctac	agattattca	ggacaggggag	ttgaccaact	gcaaagagt	11880
attgacacca	tcaaacc	ccctgacgac	agaagaatca	tcatgtgcgc	ttgaaatcca	11940
agaggttcaa	agaacccgt	cgcttccatt	tatactaacc	atactcttag	agggaaagcaa	12000
tctggttt	tgcagaggca	ctgaggggagg	caggaccctg	ggcaacttcc	cccagccaca	12060
tggttgtgt	acgttggca	agtacat	tgctgcactt	tcacccctcag	atcatgaggt	12120
tgggcccaga	ggattttttt	ttttttttt	tttttgaga	cagagtttg	ctctgttgcc	12180
caggctggaa	tgcaacggcg	tgatcttggc	tcactgtac	ctctgcctcc	tggttcgag	12240
tgattctct	gcctcagcct	ccaagtagct	gggattacag	catgtgccac	catgcctggc	12300
taattttgt	tttttagtag	agacggggtc	acatgttgg	caggctgtc	ttgactcctg	12360
accctcagat	gatctgcctt	gcctcagcct	cccaaccgag	tgatcttaag	ttgtgttata	12420
tactcattct	tacacaaaaa	gggcatttaaa	tgcctagaaa	ctacatgaag	atgttaacat	12480
tttaaatgga	agcagatgaa	gttccagctc	gctgccacct	cactaacatt	tttaacaatt	12540
atattgtaaa	attcaactct	accagggtgt	agagccaggt	gtgtggctc	acacctgtaa	12600
ttccaacaac	tccagaggcc	aaggcgagag	gatcatttga	acccacgaa	tttggggctg	12660
tagttagtca	tgatcacgccc	attgcactcc	atccctggca	acagagttag	accctgaata	12720
tttaaaaaca	acaacaacaa	caaaaactcta	tcaggatata	ataagtactt	agagtgaat	12780
acttgcacat	gtaatagaga	tttattttt	tttttttga	gacacagtt	caccctgttg	12840
cccaggctgg	agtgcagtgg	tttgcattcc	gctcacggca	acctccatct	cccagggtca	12900
agttagttcc	cattccctcag	ccccagagct	gggaccacag	gcgcgcgaat	tttgggtatt	12960
tttagcagaga	cggggtttca	ctatgttggc	caggctagtc	tcaaactcaa	tttggcctca	13020
agtgtatctc	ccaccctggc	gtcccagtgt	tgggatttca	ggcatgagcc	actgtgcctg	13080
gccatgtaat	agagactttt	aatataggag	ggtgttaccag	aagcaccagt	ttcctgtggc	13140
aaacagaatt	attccctgt	tattttgtaa	ttgtgtccac	gaggttagccc	agatcccttc	13200
agctctgtat	gaagagcatt	gttcagccg	taaatggaca	cctgcagaaa	ccttgcacccg	13260
atggatagtc	tccctcagct	ccgtgcacatc	gctgcagggg	ctgttatgga	catcactgca	13320
gcccatgtggc	tctctcttcc	ggtctccacc	atatgatgt	gcttctgttt	ctctcctgtt	13380
ttactttggc	tttagctgt	gtcttcaaa	ccaccatccc	tccttatctt	cctctgtgg	13440
ttcctcagat	tttccctctga	tggcgtcgc	tccatgcacat	gcccctgc	agttctatgt	13500
ggtgaacagt	gagctgtcct	gccagctgt	ccagagatcg	ggagacatgg	gcctcggtgt	13560
gccttcaac	atcgccagct	acgcctctgt	cacgtacatg	attgcgcaca	tcacgggcct	13620
gaaggtggc	tgtctcgga	agggtgactt	gccagcctac	cacatgagct	tttcagttct	13680
ttaatatgg	aaaacaaatt	gcagagttt	gtctctgtt	agcttttaaa	tttgatatgt	13740
gtaagtaaga	catgaaccag	cttttactt	gaaaccctcc	ttttctggaa	ggtttctgg	13800
ccctgtggta	tatgcactaa	cagatctata	caggttggtt	gtgatacagc	ttctatggat	13860
cttctcaaaa	gctatgt	ggttgggtat	ggtggctcat	gcctgtatc	ccagcactt	13920
ggaagactga	gacaggagca	attgttggag	gtctggagtt	caataccagc	ctgggcaaca	13980
taacaagatg	ctgttgc	aaaaaaatgg	aaaagctaca	ctaaattatt	ttttaaaaaa	14040
aaggcttgcg	gtgtctgc	attctaattgt	ttttaaatga	tgttttaaag	aattgaaact	14100
aacatactgt	tctgtttct	cccggtttat	agccaggt	ctttatacac	actttggag	14160
atgcacat	ttacatgt	cacatcgac	cactgaaaat	tcaaggtaaga	attagatgtt	14220
atacttttg	gtttgttacc	ttctctgtat	aaaaggttga	ctgtggaaaca	ggtatctgt	14280
caatgtgt	tccaagataa	agatgactgc	tccaaatgt	gggcttcaat	ttagggagaa	14340
gtgggtggca	ggtgggcagg	acaaggcagg	catctgc	agcaaccatg	gcacttaact	14400
tgtcagggtc	tgtgaggtac	taagcaccag	taccagagag	ggaagagcca	cattcaagcc	14460
aggggattgt	ccaaaaggag	gcattttaa	tcattttaa	ttgaaggaga	attgaagtgc	14520
aatgttttt	cctttctt	tttttgaga	tggagtctt	ctctgtcg	caggctggag	14580
tgtgccgtgg	tgcgtatctca	gctcactgca	acctccac	cccggttca	agaattctt	14640

ctgcctcagc	ctcccaggta	gctgggatta	caggcacatg	ccaccacacc	cagctaattt	14700
tttgtattat	tagtagagat	ggggtttctgt	catgttggcc	aggctgatct	caaactcctg	14760
acttcaagtg	taccacctgc	ctcagcctcc	gaaagttctg	gaattacagg	cataagccac	14820
caccctggcc	ataaaatattt	tttgttaatt	ttacattaag	tacaatattt	aggccaaac	14880
ttcaaaaagtc	tgttgaatc	cctgaagttt	tagcagccaa	caattgatata	gaaatggcaa	14940
taaaaatgtt	agttcatctg	cttcatgagc	cttaaggaaa	aaaactcaga	accagacact	15000
tttttagcccc	ttccaggta	gatccaggtt	ttaaaagtta	ttcctttag	ggagtttggc	15060
tgcctttgag	tggaggtgac	ttcaggctt	ttctctctgg	ctctctgctc	tggtcatttt	15120
tagacatagt	aataggtgt	gacctgtctt	cacatcctaa	ttgccactgt	ctgttcatcc	15180
caggaatcct	ggcttcatc	ccttctgtt	caactgtccat	gcatgtcatc	tttccttctt	15240
tctgccaggg	accagatggg	ttagggattt	tgaattcaag	taaacgtaga	gctactatga	15300
gttacagatt	gactgtgtt	ctgtctttaa	taaatttgcc	aagagtggtt	ataagaactt	15360
acacctgatg	aggcaccagg	ctcctgtatgc	tgtgtatgt	cacaaaatac	ccctcactct	15420
cgatctgtgc	aagagaacag	ctgggtgcgc	tccaatcatg	ttacataacc	tacgcgaagg	15480
tatcgacagg	atcatactcc	tgtaaaaatag	aacttggtt	atcacatct	gtgtacttgt	15540
ttcacggaca	tgaggagcaa	ttacaacagg	tcgtacaattt	atggcaaaat	aatggcctta	15600
ttttgtttt	agcttcagcg	agaacccaga	ccttcccaa	agctcagat	tctcgaaaa	15660
gttgagaaaa	ttgatgactt	caaagctgaa	gacttccaga	ttgaagggtt	caatccgcat	15720
ccaaactatta	aaatgaaat	ggctgttttag	ggtgcttca	aaggagctg	aaggatattt	15780
tcagtcttta	gggggtggc	ttgatgcccga	ggtaaaagtt	cttttgctc	taaaagaaaa	15840
agaacttagg	tcaaaaatct	gtccgtgacc	tatcagttat	taattttaa	ggatgttgc	15900
actggcaaat	gtaactgtgc	cagttcttc	cataataaaa	ggctttgagt	taactcaet	15960
agggtatctg	acaatgctga	ggttatgaa	aaagtggaa	aatgaaatg	tatgtgctct	16020
tagcaaaaac	atgtatgtc	atttcaatcc	cacgtactta	taaagaaggt	tggtaattt	16080
cacaagctat	ttttgaaata	tttttagaaat	attttaagaa	tttcacaagc	tattccctca	16140
aatctgaggg	agctgagtaa	caccatcgat	catgtatgt	agtgtggta	tgaactttaa	16200
agttatagtt	gttttatatg	ttgctataat	aaagaagttt	tctgcattcg	tccacgctt	16260
gtcattctg	tactgccact	tatctgtctt	gttcttcct	aaaatagatt	aaagaactct	16320
ccttaagtaa	acatgtgtg	tattctgggtt	ttggatgtac	ttaaaagagt	atattttaga	16380
aataatagtg	aatatatttt	gccctatttt	tctcatttt	actgcattt	atccctaaaa	16440
tataatgacc	atttaggata	gagttttttt	ttttttttt	taaactttt	taacctaaa	16500
ggtttatttt	aaaataatct	atggactacc	attttgcctt	cattagctt	agcatgggt	16560
gacttctcta	ataatatgt	tagattaagc	aaggaaaaga	tgcaaaaacca	cttcgggggt	16620
aatcagtgaa	atattttcc	cttcgttgc	taccagatac	ccccgggtt	gcacgactat	16680
ttttattctg	ctaattttatg	acaagtgta	aacagaacaa	ggaattattt	caacaagtt	16740
tgcacatgt	tgcttatttt	caaatttacag	ttaatgtct	aggtgcccagc	ccttgatata	16800
gctatttttg	taagaacatc	ctcctggact	ttgggttagt	taaatctaaa	cttattttaa	16860
gattaagtag	gataacgtgc	attgatttgc	taaagaatc	aagtaataat	tacttagctg	16920
attcctgagg	gtggatgac	ttctagctga	actcatctt	atcggttagga	tttttttttt	16980
ccattttttt	aaaactattt	ccaagaaattt	ttaagccctt	tcacttcaga	aagaaaaaaag	17040
ttgttggggc	tgagcactta	attttcttgc	gcagaagga	gtttcttcca	aacttcacca	17100
tctggagact	gggttttctt	tacagattcc	tccttcattt	ctgtttagta	gccggatcc	17160
tatcaaagac	aaaaaaaatg	agtcctgtt	acaaccaccc	ggaacaaaaa	cagattttat	17220
gcattttatgc	tgctccaaga	aatgttttta	cgtctaagcc	agaggcaattt	atattaatttt	17280
tttttttttg	acatggagtc	actgtccgtt	gcccaaggctg	cagtgcagtg	gcgcattt	17340
ggctcactgc	aaccccccacc	tcccagggtt	aagtgtttt	cctgcctcag	cctccatgt	17400
agctgggatc	acaggcaccc	gccaccatgc	ccggtaattt	ttttgtattt	ttttagagaa	17460
cagggtttca	ccatgttggc	caggctggc	tcaaaacaccc	gacctaata	gatccaccc	17520
cctcagccctc	ccaaagtgtt	gggattacag	gcgttaagcc	ccatgcccag	ccctgaattt	17580
atatttttaa	aataagttt	gagactgtt	gaaataatag	ggcagagaa	catattttac	17640
tggctacttg	ccagagttt	ttaactcatc	aaactcttt	ataatagttt	gacccatgtt	17700
ggtgaaaatg	agccatgatc	tcttgaacat	gatcagaata	aatgccccag	ccacacaattt	17760
gtagtccaaa	cttttttagt	cactaactt	ctagatggtt	ccagggtttt	ttgcacaagg	17820
atgcacaaatg	ttaagatctc	cactagtgg	gaaaggctt	tattacagaa	gccttgcag	17880
aggcaatttga	acctccaaggc	cctggccctc	aggcctgagg	attttgata	agacaaactg	17940
aagaaccgtt	tgtttagtgg	tatttgcac	aaacagggtt	caaagcttgg	tgctccacag	18000
tctagttcac	gagacaggcg	ttggcagtggc	tggcagcatc	tcttctcaca	ggggccctca	18060
ggcacagctt	accttgggag	gcatgttaga	agcccgctgg	atcatcacgg	gatacttggaa	18120
atgctcatgc	aggtggtcaa	catactcaca	caccctagga	ggagggaaatc	agatcggggc	18180
aatgatgcct	gaagtccat	tatttgcac	gtgttactt	aaagcagaag	gagcgactac	18240
cactcaatttgc	acagtttttgg	ccaaggctt	gctgttttac	catgcgttcc	tagcaagtc	18300
cctaaacccctc	tgtgcctcag	gtccttttct	tctaaaat	agcaatgtt	ggtggggact	18360

ttgatgacat	gaacacacga	agtccctctg	agaggtttt	tggtgcctt	taaaaggat	18420
caattcagac	tctgtaaata	tccagaatta	tttgggttcc	tctggtcaaa	agtcagatga	18480
atagattaaa	atcaccacat	tttgtgatct	attttcaag	aagcgttgt	atttttcat	18540
atggctgcag	cagctgccag	gggcttggg	tttttgc	aggtagggtt	gggagg	18596

<210> 141
<211> 1536
<212> DNA
<213> Homo sapiens

<400> 141

gggggggggg	ggaccacttg	gcctgcctcc	gtccgcgcgc	gccacttggc	ctgcctccgt	60
cccgccgcgc	cacttcgcct	gcctccgtcc	cccgcgcgc	gcccgcgcgc	tgtggccggc	120
tccggagctgc	cgcgcggcc	cttgcggcc	gccgcacagg	agcgggacgc	cgagccgcgt	180
ccgcgcacgc	gggagctgca	gtaccttggg	cagatccaac	acatcctccg	ctgcggcgtc	240
aggaaggacg	accgcacggg	caccggcacc	ctgtcggtat	tcggcatgca	ggcgcgctac	300
agcctgagag	atgaattccc	tctgctgaca	accaaacgtg	tgttctgaa	gggtgttttg	360
gaggagttgc	tgtggttat	caagggatcc	acaaatgcta	aagagctgtc	ttccaaggga	420
gtgaaaatct	gggatccaa	tggatccga	gacttttgg	acagccttgg	attctccacc	480
agagaagaag	gggacttggg	cccagtttat	ggcttccagt	ggaggcattt	tggggcagaa	540
tacagagata	tggaatcaga	ttattcaga	caggagttg	accaactgca	aagagtatt	600
gacaccatca	aaaccaaccc	tgacgacaga	agaatcatca	tgtgcgcttgc	aatccaaga	660
gatcttcctc	tgtatggcgct	gcctccatgc	catgcctct	gccagttcta	tgtggtaac	720
agtgagctgt	cctgcagct	gtaccagaga	tcggagaca	tgggcctcgg	tgtgccttc	780
aacatcgcca	gctacgcct	gctcacgtac	atgattgcgc	acatcacggg	cctgaagcca	840
ggtgacttta	tacacacttt	gggagatgca	catatttacc	tgaatcacat	cgagccactg	900
aaaattcagc	ttcagcgaga	acccagactt	ttcccaaagc	tcaggattct	tcgaaaagtt	960
gagaaaaattt	atgacttcaa	agctgaagac	tttcagatttgc	aagggtacaa	tccgcatcca	1020
actattaaaa	tgaaatggc	tgttagggt	gcttcaaag	gagcttgaag	gatattgtca	1080
gtctttaggg	gttggctgg	atgcccgggt	aaaagttctt	tttgctctaa	aagaaaaagg	1140
aacttaggtca	aaaatctgtc	cgtgacccat	cagtattaa	tttttaagga	tgttgccact	1200
ggcaaatgt	actgtgccag	ttctttccat	aataaaaggc	tttgagttaa	ctcactgagg	1260
gtatctgaca	atgctgaggt	tatgaacaaa	gtgaggagaa	tgaatgtat	gtgcttttag	1320
caaaaacatg	tatgtcatt	tcaatccac	gtacttataa	agaaggttgg	tgaatttcac	1380
aagctat	tgaaatattt	tttagaatattt	ttaagaattt	cacaagctat	tccctcaaatt	1440
ctgaggggagc	tgagtaaacac	catcgatcat	gatgttaggt	gtggttatga	actttatagt	1500
tgttttatat	gttgctataa	taaagaagt	ttctgc			1536

<210> 142
<211> 313
<212> PRT
<213> Homo sapiens

<400> 142

Met	Pro	Val	Ala	Gly	Ser	Glu	Leu	Pro	Arg	Arg	Pro	Leu	Pro	Pro	Ala
1						5			10			15			
Ala	Gln	Glu	Arg	Asp	Ala	Glu	Pro	Arg	Pro	Pro	His	Gly	Glu	Leu	Gln
							20		25			30			
Tyr	Leu	Gly	Gln	Ile	Gln	His	Ile	Leu	Arg	Cys	Gly	Val	Arg	Lys	Asp
							35		40			45			
Asp	Arg	Thr	Gly	Thr	Gly	Thr	Leu	Ser	Val	Phe	Gly	Met	Gln	Ala	Arg
							50		55			60			
Tyr	Ser	Leu	Arg	Asp	Glu	Phe	Pro	Leu	Leu	Thr	Thr	Lys	Arg	Val	Phe
							65		70			75			80
Trp	Lys	Gly	Val	Leu	Glu	Glu	Leu	Leu	Trp	Phe	Ile	Lys	Gly	Ser	Thr
							85		90			95			
Asn	Ala	Lys	Glu	Leu	Ser	Ser	Lys	Gly	Val	Lys	Ile	Trp	Asp	Ala	Asn
							100		105			110			
Gly	Ser	Arg	Asp	Phe	Leu	Asp	Ser	Leu	Gly	Phe	Ser	Thr	Arg	Glu	Glu
							115		120			125			

Gly	Asp	Leu	Gly	Pro	Val	Tyr	Gly	Phe	Gln	Trp	Arg	His	Phe	Gly	Ala
130						135				140					
Glu	Tyr	Arg	Asp	Met	Glu	Ser	Asp	Tyr	Ser	Gly	Gln	Gly	Val	Asp	Gln
145					150				155				160		
Leu	Gln	Arg	Val	Ile	Asp	Thr	Ile	Lys	Thr	Asn	Pro	Asp	Asp	Arg	Arg
					165				170			175			
Ile	Ile	Met	Cys	Ala	Trp	Asn	Pro	Arg	Asp	Leu	Pro	Leu	Met	Ala	Leu
					180				185			190			
Pro	Pro	Cys	His	Ala	Leu	Cys	Gln	Phe	Tyr	Val	Val	Asn	Ser	Glu	Leu
					195				200			205			
Ser	Cys	Gln	Leu	Tyr	Gln	Arg	Ser	Gly	Asp	Met	Gly	Leu	Gly	Val	Pro
					210				215			220			
Phe	Asn	Ile	Ala	Ser	Tyr	Ala	Leu	Leu	Thr	Tyr	Met	Ile	Ala	His	Ile
225					230				235			240			
Thr	Gly	Leu	Lys	Pro	Gly	Asp	Phe	Ile	His	Thr	Leu	Gly	Asp	Ala	His
					245				250			255			
Ile	Tyr	Leu	Asn	His	Ile	Glu	Pro	Leu	Lys	Ile	Gln	Leu	Gln	Arg	Glu
					260				265			270			
Pro	Arg	Pro	Phe	Pro	Lys	Leu	Arg	Ile	Leu	Arg	Lys	Val	Glu	Lys	Ile
					275				280			285			
Asp	Asp	Phe	Lys	Ala	Glu	Asp	Phe	Gln	Ile	Glu	Gly	Tyr	Asn	Pro	His
					290				295			300			
Pro	Thr	Ile	Lys	Met	Glu	Met	Ala	Val							
				305			310								

<210> 143

<211> 942

<212> DNA

<213> Homo sapiens

<400> 143

atgcctgtgg	ccggctcgga	gctgccgcgc	cggcccttgc	ccccgcgcgc	acaggagcgg	60
gacgcccggc	cgcgtccgccc	gcacggggag	ctgcagttacc	tggggcagat	ccaacacatc	120
ctccgctgcg	gcgtcaggaa	gacgaccgc	acggcaccgc	gcaccctgtc	ggtattcggc	180
atgcaggcgc	gctacagcct	gagagatgaa	ttccctctgc	tgacaaccaa	acgtgtgttc	240
tggaagggtg	ttttggagga	gttgctgtgg	tttatcaagg	gatccacaaa	tgctaaagag	300
ctgtcttcca	agggagtgaa	aatctggat	gccaatggat	cccggactt	tttggacagc	360
ctgggattct	ccaccagaga	agaaggggac	ttgggcccag	tttatggctt	ccagtgagg	420
cattttgggg	cagaatacag	agatatggaa	tcagattatt	caggacaggg	agttgaccaa	480
ctgcaaagag	tgattgacac	catcaaaaacc	aaccctgacg	acagaagaat	catcatgtgc	540
gcttggaaatc	caagagatct	tcctctgatg	gctgcctc	catgccatgc	cctctgccag	600
ttctatgtgg	tgaacagtga	gctgtctgc	cagctgtacc	agagatcggg	agacatggc	660
ctcgggtgtc	cttcaacat	cgccagctac	gccctgctca	cgtacatgtat	tgcgcacatc	720
acgggcctga	agccaggtga	cttatacac	acttgggag	atgcacatat	ttacctgaat	780
cacatcgacg	cactaaaaat	tcaagttcag	cgagaaccca	gacctttccc	aaagctcagg	840
attcttcgaa	aagttagagaa	aattgtatgac	ttcaaaagctg	aagactttca	gattgaaggg	900
tacaatccgc	atccaactat	taaaatggaa	atggctgttt	ag		942

<210> 144

<211> 186

<212> PRT

<213> Homo sapiens

<400> 144

Met	Pro	Val	Ala	Gly	Ser	Glu	Leu	Pro	Arg	Arg	Pro	Leu	Pro	Pro	Ala
1						5			10			15			
Ala	Gln	Glu	Arg	Asp	Ala	Glu	Pro	Arg	Pro	Pro	His	Gly	Glu	Leu	Gln
							20		25			30			
Tyr	Leu	Gly	Gln	Ile	Gln	His	Ile	Leu	Arg	Cys	Gly	Val	Arg	Lys	Asp
								35		40		45			

Asp Arg Thr Gly Thr Gly	Thr Leu Ser Val Phe	Gly Met Gln Ala Arg	
50	55	60	
Tyr Ser Leu Arg Asp Glu	Phe Pro Leu Leu Thr	Thr Lys Arg Val Phe	
65	70	75	80
Trp Lys Gly Val Leu Glu	Glu Leu Leu Trp	Phe Ile Lys Gly Ser Thr	
85	90	95	
Asn Ala Lys Glu Leu Ser	Ser Lys Gly Val Lys	Ile Trp Asp Ala Asn	
100	105	110	
Gly Ser Arg Asp Phe Leu	Asp Ser Leu Gly Phe	Ser Thr Arg Glu Glu	
115	120	125	
Gly Asp Leu Gly Pro Val	Tyr Gly Phe Gln	Trp Arg His Phe Gly Ala	
130	135	140	
Glu Tyr Arg Asp Met Glu	Ser Asp Tyr Ser Gly	Gln Gly Val Asp Gln	
145	150	155	160
Leu Gln Arg Val Ile Asp	Thr Ile Lys Thr Asn	Pro Asp Asp Arg Arg	
165	170	175	
Ile Ile Met Cys Ala Trp	Asn Pro Arg Asp		
180	185		

<210> 145

<211> 70

<212> PRT

<213> Homo sapiens

<400> 145

Lys Pro Gly Asp Phe Ile	His Thr Leu Gly Asp	Ala His Ile Tyr Leu	
1	5	10	15
Asn His Ile Glu Pro Leu	Lys Ile Gln Leu Gln	Arg Glu Pro Arg Pro	
20	25	30	
Phe Pro Lys Leu Arg Ile	Leu Arg Lys Val Glu	Lys Ile Asp Asp Phe	
35	40	45	
Lys Ala Glu Asp Phe Gln	Ile Glu Gly Tyr Asn	Pro His Pro Thr Ile	
50	55	60	
Lys Met Glu Met Ala Val			
65	70		

<210> 146

<211> 18

<212> PRT

<213> Homo sapiens

<400> 146

Leu Pro Leu Met Ala Leu	Pro Pro Cys His Ala	Leu Cys Gln Phe Tyr	
1	5	10	15
Val Val			

<210> 147

<211> 25

<212> PRT

<213> Homo sapiens

<400> 147

Met Gly Leu Gly Val Pro	Phe Asn Ile Ala Ser	Tyr Ala Leu Leu Thr	
1	5	10	15
Tyr Met Ile Ala His Ile	Thr Gly Leu		
20	25		

<210> 148

<211> 14

<212> PRT

<213> Homo sapiens

<400> 148
Asn Ser Glu Leu Ser Cys Gln Leu Tyr Gln Arg Ser Gly Asp
1 5 10

<210> 149
<211> 14
<212> PRT
<213> Homo sapiens

<400> 149
Asn Ser Glu Leu Ser Cys Gln Leu Tyr Gln Arg Ser Gly Asp
1 5 10

<210> 150
<211> 18
<212> PRT
<213> Homo sapiens

<400> 150
Leu Pro Leu Met Ala Leu Pro Pro Cys His Ala Leu Cys Gln Phe Tyr
1 5 10 15
Val Val

<210> 151
<211> 25
<212> PRT
<213> Homo sapiens

<400> 151
Met Gly Leu Gly Val Pro Phe Asn Ile Ala Ser Tyr Ala Leu Leu Thr
1 5 10 15
Tyr Met Ile Ala His Ile Thr Gly Leu
20 25

<210> 152
<211> 186
<212> PRT
<213> Homo sapiens

<400> 152
Met Pro Val Ala Gly Ser Glu Leu Pro Arg Arg Pro Leu Pro Pro Ala
1 5 10 15
Ala Gln Glu Arg Asp Ala Glu Pro Arg Pro Pro His Gly Glu Leu Gln
20 25 30
Tyr Leu Gly Gln Ile Gln His Ile Leu Arg Cys Gly Val Arg Lys Asp
35 40 45
Asp Arg Thr Gly Thr Gly Thr Leu Ser Val Phe Gly Met Gln Ala Arg
50 55 60
Tyr Ser Leu Arg Asp Glu Phe Pro Leu Leu Thr Thr Lys Arg Val Phe
65 70 75 80
Trp Lys Gly Val Leu Glu Glu Leu Leu Trp Phe Ile Lys Gly Ser Thr
85 90 95
Asn Ala Lys Glu Leu Ser Ser Lys Gly Val Lys Ile Trp Asp Ala Asn
100 105 110
Gly Ser Arg Asp Phe Leu Asp Ser Leu Gly Phe Ser Thr Arg Glu Glu
115 120 125
Gly Asp Leu Gly Pro Val Tyr Gly Phe Gln Trp Arg His Phe Gly Ala
130 135 140

Glu Tyr Arg Asp Met Glu Ser Asp Tyr Ser Gly Gln Gly Val Asp Gln
145 150 155 160
Leu Gln Arg Val Ile Asp Thr Ile Lys Thr Asn Pro Asp Asp Arg Arg
165 170 175
Ile Ile Met Cys Ala Trp Asn Pro Arg Asp
180 185

<210> 153
<211> 70
<212> PRT
<213> Homo sapiens

<400> 153
Lys Pro Gly Asp Phe Ile His Thr Leu Gly Asp Ala His Ile Tyr Leu
1 5 10 15
Asn His Ile Glu Pro Leu Lys Ile Gln Leu Gln Arg Glu Pro Arg Pro
20 25 30
Phe Pro Lys Leu Arg Ile Leu Arg Lys Val Glu Lys Ile Asp Asp Phe
35 40 45
Lys Ala Glu Asp Phe Gln Ile Glu Gly Tyr Asn Pro His Pro Thr Ile
50 55 60
Lys Met Glu Met Ala Val
65 70

<210> 154
<211> 23
<212> DNA
<213> Homo sapiens

<400> 154
gtcatgcttt tatacattct ggc 23

<210> 155
<211> 25
<212> DNA
<213> Homo sapiens

<400> 155
ttatctgttt agatcagcac tacac 25

<210> 156
<211> 28
<212> DNA
<213> Homo sapiens

<400> 156
gtacttgata tttatataca tcctaatac 28

<210> 157
<211> 21
<212> DNA
<213> Homo sapiens

<400> 157
gtaatccaac actttgggag g 21

<210> 158
<211> 70
<212> PRT

<213> Homo sapiens

<400> 158

Lys	Pro	Gly	Asp	Phe	Ile	His	Thr	Leu	Gly	Asp	Ala	His	Ile	Tyr	Leu
1				5				10					15		
Asn	His	Ile	Glu	Pro	Leu	Lys	Ile	Gln	Leu	Gln	Arg	Glu	Pro	Arg	Pro
				20				25				30			
Phe	Pro	Lys	Leu	Arg	Ile	Leu	Arg	Lys	Val	Glu	Lys	Ile	Asp	Asp	Phe
				35				40			45				
Lys	Ala	Glu	Asp	Phe	Gln	Ile	Glu	Gly	Tyr	Asn	Pro	His	Pro	Thr	Ile
	50				55					60					
Lys	Met	Glu	Met	Ala	Val										
65				70											

<210> 159

<211> 437

<212> PRT

<213> H. sapiens

<400> 159

Met	Lys	Ile	Lys	Ala	Glu	Lys	Asn	Glu	Gly	Pro	Ser	Arg	Ser	Trp	Trp
1				5				10				15			
Gln	Leu	His	Trp	Gly	Asp	Ile	Ala	Asn	Asn	Ser	Gly	Asn	Met	Lys	Pro
				20				25			30				
Pro	Leu	Leu	Val	Phe	Ile	Val	Cys	Leu	Leu	Trp	Leu	Lys	Asp	Ser	His
				35				40			45				
Cys	Ala	Pro	Thr	Trp	Lys	Asp	Lys	Thr	Ala	Ile	Ser	Glu	Asn	Leu	Lys
	50				55				60						
Ser	Phe	Ser	Glu	Val	Gly	Glu	Ile	Asp	Ala	Asp	Glu	Glu	Val	Lys	Lys
	65				70				75			80			
Ala	Leu	Thr	Gly	Ile	Lys	Gln	Met	Lys	Ile	Met	Met	Glu	Arg	Lys	Glu
				85				90			95				
Lys	Glu	His	Thr	Asn	Leu	Met	Ser	Thr	Leu	Lys	Lys	Cys	Arg	Glu	Glu
				100				105			110				
Lys	Gln	Glu	Ala	Leu	Lys	Leu	Leu	Asn	Glu	Val	Gln	Glu	His	Leu	Glu
				115				120			125				
Glu	Glu	Glu	Arg	Leu	Cys	Arg	Glu	Ser	Leu	Ala	Asp	Ser	Trp	Gly	Glu
	130				135				140						
Cys	Arg	Ser	Cys	Leu	Glu	Asn	Asn	Cys	Met	Arg	Ile	Tyr	Thr	Thr	Cys
145					150				155			160			
Gln	Pro	Ser	Trp	Ser	Ser	Val	Lys	Asn	Lys	Ile	Glu	Arg	Phe	Phe	Arg
				165				170			175				
Lys	Ile	Tyr	Gln	Phe	Leu	Phe	Pro	Phe	His	Glu	Asp	Asn	Glu	Lys	Asp
				180				185			190				
Leu	Pro	Ile	Ser	Glu	Lys	Leu	Ile	Glu	Glu	Asp	Ala	Gln	Leu	Thr	Gln
				195				200			205				
Met	Glu	Asp	Val	Phe	Ser	Gln	Leu	Thr	Val	Asp	Val	Asn	Ser	Leu	Phe
				210				215			220				
Asn	Arg	Ser	Phe	Asn	Val	Phe	Arg	Gln	Met	Gln	Gln	Glu	Phe	Asp	Gln
225					230				235			240			
Thr	Phe	Gln	Ser	His	Phe	Ile	Ser	Asp	Thr	Asp	Leu	Thr	Glu	Pro	Tyr
				245				250			255				
Phe	Phe	Pro	Ala	Phe	Ser	Lys	Glu	Pro	Met	Thr	Lys	Ala	Asp	Leu	Glu
				260				265			270				
Gln	Cys	Trp	Asp	Ile	Pro	Asn	Phe	Phe	Gln	Leu	Phe	Cys	Asn	Phe	Ser
				275				280			285				
Val	Ser	Ile	Tyr	Glu	Ser	Val	Ser	Glu	Thr	Ile	Thr	Lys	Met	Leu	Lys
				290				295			300				
Ala	Ile	Glu	Asp	Leu	Pro	Lys	Gln	Asp	Lys	Ala	Pro	Asp	His	Gly	Gly
305					310				315			320			
Leu	Ile	Ser	Lys	Met	Leu	Pro	Gly	Gln	Asp	Arg	Gly	Leu	Cys	Gly	Glu
				325				330			335				

Leu Asp Gln Asn Leu Ser Arg Cys Phe Lys Phe His Glu Lys Cys Gln
 340 345 350
 Lys Cys Gln Ala His Leu Ser Glu Asp Cys Pro Asp Val Pro Ala Leu
 355 360 365
 His Thr Glu Leu Asp Glu Ala Ile Arg Leu Val Asn Val Ser Asn Gln
 370 375 380
 Gln Tyr Gly Gln Ile Leu Gln Met Thr Arg Lys His Leu Glu Asp Thr
 385 390 395 400
 Ala Tyr Leu Val Glu Lys Met Arg Gly Gln Phe Gly Trp Val Ser Glu
 405 410 415
 Leu Ala Asn Gln Ala Pro Glu Thr Glu Ile Ile Phe Arg Arg Ser Asn
 420 425 430
 Ala Ser Tyr Ile Gln
 435

<210> 160
 <211> 1134
 <212> DNA
 <213> H. sapiens

<400> 160
 cctgaaagcc tggcgccaat gacccgcgag acatttttg cctggggtgc tcctgtcgga 60
 aaggaaagag gaaaggacga ctaagaactc gaactcccga atttctctt tcaaggttta 120
 agaggaaagc tggttcgtgg ggattggatg ggagggccacc aggaaaccaa gttcccgcc 180
 cagcttcagt gctstccctt tcccgccgccc tttggcccgcc ccacatcaact ttcgctccag 240
 tttttgaaaaa cgctgcgaag cggaatggtc cacaggggaa aacggaggag gggccaaagc 300
 caggactttg agaccggcgc gcggtcaagc ccagggcagct ctccctaacc ctccagcact 360
 gggcaaaacgc tgcccgatga cgcccgccctc gggggccacg gcatcaactgg ggcgactg 420
 agcccgcccg cggagccgct gggacgcgc ttacccctccg gctgtcgtcg ctgtgtgt 480
 tggcccgccccc agtcacgtcc ctaatggac cctccgttcc ggcgtctgtta aggcgaggag 540
 gacgatgcgt cccctccctg gcaggattga ggttaggact aaacggggtc cgcagcgc 600
 ggcagctccc gagcgcctcc cccagccgcg cctccctccct tcccgccacc cgtcccgcc 660
 gggcccgccgg cgtcacctct caggctgttag cgccgcgtca tgccgaatac cgacagggtg 720
 ccgggtccccg tgccgtcgcc cttccctgacg ccgcagccgaa ggtatgtttg gatctgcccc 780
 agtactttc aggattcca ggtcccagat gaagagataa ttctacttac tggatataagg 840
 atgcattaga tcttcttacc ttaaaaaaaaaa aaaaaaaaaaagca gcaatgatca aaatacta 900
 aaattactca cagactcagt gtatttttc ttggagtaaa agtccaggat gggtaataga 960
 atacctgtctg ttggcttttgg gaaaaattgg tactgtgtgt agcaaataa tgtgaaaccc 1020
 atatgcatgg atattcttaa caatttgaag aaatcgtcac agcttccctg ggttggtag 1080
 cctctaagat ggtctttcc tctgatgtga taataaagtg tttattctga actc 1134

<210> 161
 <211> 50
 <212> PRT
 <213> H. sapien

<220>
 <221> misc_feature
 <222> (45)...(45)
 <223> Xaa = Ile or Leu

<400> 161
 Phe Gly Trp Val Ser Glu Leu Ala Asn Gln Ala Pro Glu Thr Glu Ile
 1 5 10 15
 Ile Phe Asn Ser Ile Gln Val Val Pro Arg Ile His Glu Gly Asn Ile
 20 25 30
 Ser Lys Gln Asp Glu Thr Met Met Thr Asp Leu Ser Xaa Pro Ser Ser
 35 40 45
 Asn Phe
 50

<210> 162

<211> 49
 <212> PRT
 <213> bovine

<220>
 <221> misc_feature
 <222> (44)...(44)
 <223> Xaa = Ile or Leu

<400> 162
 Phe Gly Trp Val Thr Glu Leu Ala Ser Gln Thr Pro Gly Ser Glu Asn
 1 5 10 15
 Ile Phe Ser Phe Ile Lys Val Val Pro Gly Val His Glu Gly Asn Phe
 20 25 30
 Ser Lys Gln Asp Glu Lys Met Ile Asp Ile Ser Xaa Pro Ser Ser Asn
 35 40 45
 Phe

<210> 163
 <211> 51
 <212> PRT
 <213> guinea pig

<220>
 <221> misc_feature
 <222> (46)...(46)
 <223> Xaa = Ile or Leu

<400> 163
 Phe Gly Trp Val Leu Glu Leu Ala Tyr Gln Ser Pro Gly Ala Glu Asp
 1 5 10 15
 Ile Phe Asn Pro Val Lys Val Met Val Ala Leu Ser Ala His Glu Gly
 20 25 30
 Asn Ser Ser Asp Gln Asp Asp Thr Val Val Pro Ser Ser Xaa Pro Ser
 35 40 45
 Ser Asn Phe
 50

<210> 164
 <211> 49
 <212> PRT
 <213> rat

<220>
 <221> misc_feature
 <222> (44)...(44)
 <223> Xaa = Ile or Leu

<400> 164
 Phe Gly Trp Val Ser Gln Leu Ala Ser His Asn Pro Val Thr Glu Asp
 1 5 10 15
 Ile Phe Asn Ser Thr Lys Ala Val Pro Lys Ile His Glu Gly Asp Ser
 20 25 30
 Ser Lys Gln Asp Glu Ile Met Val Asp Ser Ser Xaa Pro Ser Ser Asn
 35 40 45
 Phe

<210> 165
 <211> 1767
 <212> DNA
 <213> Cavia sp.

<400> 165

cttggagtca actgagtgtg gactgaaact tccaaaaact gacatgagga gtcactggag 60
aatcatgatc aaggagctac acactctgac ttaactttat tctgtggaca atgagagaca 120
actgcaagga ttaacagtga gaacatgaag ctgccactt tgatgtttcc cgtgtgtctg 180
ctatggttga aagactgtca ttgtgcaccc acttggagg aaaaaactgc catcagtgaa 240
aacgcgaaca gttttctga gcgtggggag atagacgtag atggagaggt gaagatagct 300
ttgattggca ttaaacagat gaaaatcatg atggaaagga gagaggaaga acacagcaaa 360
ctaatgaaaaa ccttgaagaa gtgcaaagaa gaaaagcagg aggccctgaa acttatgaat 420
gaagttcatg aacacctgga ggaggaagaa agcttatgcc aggtttctct ggcagattcc 480
tgggatgaat gcagggctt cctggaaagt aactgcatga gggttatac cacctgcca 540
cctgcatgtt cctctgtgaa aatatggaa aatgacagaa gtggccctgt cagcaaaggg 600
gtcactgagg aagatgcgca ggtgtcacac atagagcatg tgttcagcca gctgagcgc 660
gtatgtgacat ctctttcaa cagaaggctt tacgtttca aacagctgc gcgagaattt 720
gaccaggcctt ttcagtcata tttcacatcg gggactgacg ttacagagcc ttctttttt 780
ccatctttgtt ccaaggagcc agcctacaga gcagatgctg agccaagctg ggcattccc 840
aatgtcttcc agctgctctg caacttgagt ttctcagttt atcaaagtgt cagtaaaaaa 900
ctcatcacaa ccctgcgtgc cacagaggac cctccaaaac aagacaaga ctccaaccag 960
ggaggcccgat tttcaaaagat actacctgag caagacagag gctcagatgg gaaacttggc 1020
cagaattttgtt ctgattgcgt taatttcgc aagagatgcc agaaatgcc ggattatcta 1080
tctgtatgact gcccataatgt gcctgaacta tacagagaac tcaatgaggc cctccgactg 1140
gctcagtagat ccaatcagca atacgaccag gtggcaga tgacccagta tcacctggaa 1200
gacaccacgc ttctgatgga gaagatgaga gagcagttt gctgggttc tgaactggca 1260
taccagtccc caggagctga ggacatctt aatccagtga aagtaatggt agccctaagt 1320
gctcatgaag gaaattttc tgatcaagat gacacagtgg ttccctcaag cctccgtcct 1380
tcctctaact tcacactcag cagcccttt gaaaagagtg ctggcaacgc taacttcatt 1440
gatcacgtgg tagagaaggt ttttcagcac ttaaggagc actttaaaac ttgtaagaa 1500
gatttagtcc atcctataat cagcaagaat tacacctcg gccaagaccc gagaattctg 1560
aaaatacaaa gcaggctaac acaatgaaca cagctgcatt aaagtttaggt atatattagg 1620
aagcactatt ggtttacttt gttgaatgga agttaatag ctattcaaat tgagttataa 1680
taaaaatttc ttccctaaaaa gtaaaatgta catatgtaga atatgtgca ttagttctt 1740
gtatactaaa taaatactga gtcggccctt 1767